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ABSTRACT

A synthesis of research on unusually effective schools is presented in this monograph, with a focus on research conducted since 1985. Three major issues are addressed: (1) the viability of the effective school concept in contemporary school reform; (2) the correlation between recent research and basic findings; (3) and the congruency of school level practices with research on classroom and district practices and policies. The first part discusses issues involving the identification of unusually effective schools based on academic achievement criteria, such as effective schools correlates and achievement criteria of effectiveness. The two following major sections address school practices within different contexts--such as grade level, socioeconomic status, and rural schools--and the effectiveness of such practices. Findings indicate that effectiveness correlates should be viewed as prerequisites rather than guarantees of success; that policy and practices at the school level should consider contextual variables and set priorities accordingly; that tests should encourage the development of higher order skills; and that research should focus on both effective teaching skills and school practices. Recommendations for successful change models call for a focus on the single school and a collegial effort between administration and staff. One table and a 13-page bibliography are included. (LMI)

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Unusually Effective Schools

A Review and Analysis of Research and Practice

by

Daniel U. Levine, Ph.D.

and

Lawrence W. Lezotte, Ph.D.

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The National Center for Effective Schools Research & Development

A resource for assuring quality and equality in Education

March, 1990

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FOREWORD

IN THE SUMMER OF 1988 the National Center on Effective Schools asked Professor Daniel U. Levine, of the Educational Administration Department of the School of Education, University of Missouri, Kansas City, and director of the Center for the Study of Metropolitan Problems in Education, and Dr. Lawrence W. Lezotte, former director of the National Center for Effective Schools Research and Development and now senior consultant to the center, to collaborate in the writing of a monograph which synthesized research and research findings about unusually effective schools.

While the synthesis begins by telling the story of the early development (1974-84) of the correlates of effective schools, the elaboration of research since 1985 (Chapters V-VII) is the essence of this work. The correlates were the harbingers of school improvement; what happened to school organizational dynamics and student outcomes after the correlates were in place has been the focus of more recent research on the development of effective schools.

This research focus has resulted in descriptions of how certain organizational structures—school based management/improvement, a student monitoring system, staff development and curriculum development systems, reward/incentive systems for students, teachers, support staff and administrators—were designed, and how implementation of these systems affected the operations of schools and school districts.

Although "restructuring" has become a buzzword, unusually effective schools set about restructuring early in their improvement programs, by designing and implementing new and consistently enforced discipline codes; agreeing to student evaluation processes, data gathering and interpretation of academic (and other) outcomes; and especially by developing school-based teams and learning how to share in the day-to-day decision-making processes at the school site. All of these "restructuring" activities working together led to the organizational systems mentioned above.

Whether these systems actually cause students to improve their performance is not the relevant question here. The research on unusually effective schools is filled with numerous criteria and different standards for measuring "effectiveness." Also, the long-linked model of extremely complex interactions, starting with mission-setting and action plans, and ending with change in classroom activities and student pursuits, is difficult enough to sort out. To use it to explain cause and effect relationships at the present time is foolhardy.

At this juncture, we feel it is sufficient to note the important variables to be considered in further research studies which will refine the model, and which will add to the knowledge base on which school improvement is built. Our primary purpose is to bring to the attention of practitioners and researchers in the field and in universities, state departments of education, regional labs, school districts and schools, and to interested citizens and parents the up-to-date findings of the literature known as Effective Schools Research.

The National Center for Effective Schools Research and Development believes that this knowledge and the understanding of it will build confidence in those who seek to change schools fundamentally so that all children are taught the intended curriculum and have an equal opportunity to learn and to excel in learning.

> "Whenever we talk about an effective school or an excellent school, we ought to be prepared to ask and answer two very basic questions. Effective or excellent at what and effective or excellent for whom? Ron Edmonds said we already know more than we need in order to successfully teach all students whose schooling is of interest to us. We are even more sure today than we were ten years ago that whether we do or do not reach and teach all students ultimately will depend on how educators and citizens feel about the fact that we are not now accomplishing this goal." (from the *Concluding Comments* of this monograph, p. 72)

I

INTRODUCTION

THIS MONOGRAPH IS INTENDED to address three continuing questions involving unusually effective schools. First, is the unusually effective schools concept viable in the contemporary discussion on school reform? Second, have recent research and current descriptions of effective practices tended to support the basic findings of this line of inquiry? Finally, do the practices that support effectiveness at the school level tend to be congruent with, and therefore supportive of, the research on effective classroom practices on the one hand, and effective district policies and practices, on the other? While we do not claim that the research cited is exhaustive of all possible, relevant work, we have tried to make this interpretive analysis reflective of the major lines of inquiry and research findings pertaining to the construct of school effectiveness.

From the outset of what some now refer to as the effective schools movement, the concept of the effective school has been disarmingly simple. If one starts with the basic definition of "effective"—to produce a desired result or outcome—and uses it to define an effective school, one quickly realizes that there is a virtual consensus, at least conceptually, on what constitutes an effective school. In one way or another, an effective school usually is described as one where all of its students master the intended curriculum. Stated differently, many of those who have been involved in the evolution of the effective schools discourse have posed two basic questions: Effective at what, and Effective for whom? As implied above, the answers are again deceptively simple. "Effective at what" requires teaching so that the students master the intended curriculum. "Effective for whom" means *all* the students.

While it is relatively easy to reach agreement as to the conceptual definition of an effective school, the consensus breaks down quickly when one tries to decide what will be considered acceptable evidence of the presence of "mastery of the intended curriculum" by "all students." The first phase of this monograph briefly reviews some of the research and related measurement issues relative to competing conceptions of "mastery of the intended curriculum." It is still true, as it was when stated by Ron Edmonds in the early 1970's, that we have to study schools as we find them. We currently find some schools with virtually no *evidence* of students mastering the intended curriculum. We find some schools reporting only inappropriate measures such as standardized norm-referenced tests designed to measure individual differences in some aptitude or ability rather than mastery of an intended curriculum. We find some schools collecting only evidence that assesses mastery of basic, often low-level skills, at the expense of higher order learning. The issue of measurement of curriculum mastery is central to the discourse on school effectiveness because of the large element of truth found in the generalization that in complex organizations, "What gets measured gets done." While our analysis of measurement issues is limited to those dealing with academic achievement, we acknowledge that many other considerations, such as student attitudes and attendance, also are important in determining whether a school is effective.

After our discussion of issues involving identification of unusually effective schools using academic achievement criteria, the two succeeding major sections of this monograph address two additional questions: 1) What do effective schools do that seems to be related to their unusual levels of effectiveness? and 2) What practices seem to work best to assist schools to become more effective? We hope that this monograph will make a significant contribution by bringing the reader up to date on the latest findings regarding these issues from both the research and practice communities.

II

Effective Schools Correlates

Much of the early research that examined unusually effective schools identified five to seven characteristics or "correlates" thought to distinguish these schools from less effective schools. Probably the best known correlates are those identified by Brookover, Edmonds, Lezotte, Fredericksen, and their colleagues who carried out research in Michigan and elsewhere (e.g. Brookover and Lezotte, 1979; Brookover, 1979) in the 1970's. One description of these correlates identified them as: 1) emphasis on student acquisition of basic skills; 2) high expectations for students; 3) strong administrative leadership; 4) frequent monitoring of student progress; and 5) orderly climate conducive to learning (Edmonds, 1978).

A similar but expanded set of seven correlates has been identified and utilized by Gauthier (1982, 1985), Shoemaker (1982:198), Villanova (1984), and others involved in the Connecticut School Effectiveness Project. The seven correlates are: 1) Safe and Orderly Environment; 2) Clear School Mission; 3) Instructional Leadership; 4) High Expectations; 5) Opportunity to Learn and Student Time on Task; 6) Frequent Monitoring of Student Progress; and 7) Positive Home-School Relations.

Various researchers have identified correlates other than the five-to-seven most frequently utilized characteristics and their variations (e.g. Glenn, 1981; Levine and Stark, 1981, 1982; Stedman, 1987; Stringfield and Teddlie, 1987). Some analyses—usually compilations based on a set of studies—have cited dozens of correlates and subcorrelates. It should be noted that research or analysis dealing with seldom cited correlates generally is not well replicated, if only because such characteristics thought by one or another analyst to be important considerations have not been included as variables to be assessed in research by others. Thus lack of replication does not necessarily mean that such characteristics identified as critical by various researchers are unimportant, but sometimes only that they have not been sufficiently studied.

Much of the recent research has continued to support the conclusion that most or all of the most frequently utilized five-to-seven correlates do distinguish between more and less effective schools. For example, Weiss (1984) found that thirteen "improving" inner city (i.e. poverty) schools in Milwaukee had higher scores on a teacher questionnaire dealing with administrative leadership, basic skills emphasis, climate and atmosphere, monitoring and evaluation, and high expectations for students, than did five nonimproving comparison schools. (This study, as has several others [e.g. Kijai, 1988], also found that administrative instructional leadership independently accounted for much more variance in school classification than did the other correlates). Similarly, Bamburg and Andrews (1987) found that Seattle elementary schools which registered relatively high on gains in mathematics achievement had higher scores on positive learning climate, strong leadership, high expectations, and frequent monitoring than did elementary schools with smaller gains.

However, other studies have reported that some or most correlates do not independently predict effectiveness (West, 1985; Kijai 1988; Brousseau, 1989). Among such studies, most correlates usually were moderately to highly associated with each other, and the methodology usually used multivariate analysis which partialled out one or more of them as independent predictors. In addition, multiple regression analyses typically rank schools on a continuum, rather than designating schools that are strikingly effective or ineffective. For these reasons, multiple regression research frequently has not been very helpful in identifying or validating school

characteristics that are correlated with unusual effectiveness.

By way of contrast, much of our most useful or "usable" knowledge regarding correlates of effectiveness has been drawn from case studies of schools which either have clearly higher achievement than most schools comparable in social class or have registered impressive gains in achievement over a period of several years. In general, their salient characteristics are not "distinguishing" characteristics in the sense that data were available to demonstrate differential patterns between schools high and low in effectiveness; instead, observers concluded that these characteristics accounted for or were otherwise "correlated" with their unusual success.

Of course, it should be kept in mind that correlation is not causation. Correlates of school effectiveness may not necessarily portray the variables that make some schools unusually effective, but instead may themselves be the product of unspecified processes, actions, and characteristics that lead both to higher achievement and to high scores on correlates dealing with variables such as climate, leadership, and expectations (Edmonds, 1982; Rowan, Bossert, and Dwyer, 1983; Rowan, 1985; Good and Brophy, 1986; Lezotte, 1986; Wayson, 1988). Issues involving underlying considerations that generate greater school effectiveness are discussed at length throughout this monograph.

III

ACHIEVEMENT CRITERIA OF EFFECTIVENESS

SELECTION OF THE CRITERIA for classifying a school or schools as effective or ineffective has been a topic of considerable debate and research. Analyses of school effectiveness can and have used various norm-referenced and criterion-referenced tests and sub-tests assessing academic achievement in reading, math, and other subjects (combined or separated by subject, aggregated or separated across grade levels); measures of attendance and disciplinary patterns; affective variables such as student satisfaction; and a host of other output criteria. In addition, effectiveness defined in terms of academic achievement can and has been assessed in accordance with comparisons of the current standing of a school or schools compared with others, patterns of recent improvement or non-improvement, rate of gain in outcome measures, performance above or below prediction based on students' background characteristics (the "outlier model"), and disaggregation to determine whether differing groups of students perform at comparable levels. For reasons specified below, our review of the diverse literature involving achievement criteria of effectiveness led to the following conclusions that we believe should be utilized in designing and guiding school improvement efforts.

1. ***Differing achievement criteria of effectiveness and data analysis methods frequently lead to conflicting conclusions about whether a school is effective or ineffective. Thus it is best to be cautious regarding conclusions drawn from school effectiveness research.***

Researchers who have carefully examined the data in school effectiveness studies generally have concluded that many schools identified as particularly successful according to a particular measure such as reading scores or sub scores at a particular grade do not stand out as unusually successful with respect to other grade levels, other subject areas, and alternate performance measures (norm-referenced or criterion-referenced) in the same subject or a related subject area (Rowan, Bossert, and Dyer, 1983; Klitgaard and Hall, 1974; Frederick and Clauset, 1985; Good and Brophy, 1986; Levine and Stephenson, 1987; Homiston, 1988; Brousseau, 1989; Grady, Wayson, and Zirkel, 1989; Tate, Piotrowski, and Im, 1989).

Various researchers also report that identification of a given school or schools as effective depends on methodological variations such as the socioeconomic measures used to control for students' background and the way data are constructed (e.g. mean achievement versus percentage of students above a criterion level) and disaggregated (no or minimal difference between working class and middle class students versus high absolute level for the total group [Lark, Blust, and Coldiron, 1984; Frederick and Clauset, 1985; Zirkel and Greenwood, 1987; Homiston, 1988]). In addition, control for students' social class frequently has been inadequate, multiple regression approaches used to identify outliers often have resulted in designation of a school as effective or ineffective based on only slight achievement differentials, differing data analysis methods frequently produce differing conclusions, invalid conclusions regarding the utility of a particular school characteristic sometimes have been drawn from data on one item embedded in a correlated set of questionnaire items, and conclusions concerning correlates of effectiveness sometimes have been drawn (usually unknowingly) from data on one or two idiosyncratic schools which may report incorrect or misleading data in a sample of

fifty, one hundred, or more schools (see Gastright, 1977; Rowan, Bossert, and Dwyer, 1983; Levine and Stephenson, 1987; Brousseau, 1989; Huff, Serlin, Schneider, and Foley, 1989; Tate, Piotrowski, and Im, 1989).

2. ***Both researchers and practitioners should be careful to specify meaningful achievement criteria in identifying unusually effective schools and in planning, implementing, and assessing efforts to make a school or group of schools more effective.***

One of the most distressing results of methodological uncertainties such as those enumerated above has been a tendency to draw conclusions regarding school effectiveness correlates and practices from data regarding student performance on low-level learning tasks that are most easily taught and tested by teachers and are most easily memorized and regurgitated by students. This tendency is particularly evident in the many studies which depend wholly or largely on such outcome criteria as: 1) primary grade test scores, which generally and perhaps necessarily are very limited in assessing independent learning, conceptual application, thinking, and other higher order tasks and skills (Hiebert, 1988); 2) scores aggregated across grade levels so that poor performance on higher order tasks and skills is masked by acceptable performance on low order skills at lower grades; 3) scores aggregated across tests and sub-tests so that high performance on mechanical skills such as punctuation, spelling,and math computation disguises unacceptable performance on fundamental reading and math skills such as comprehension of text and problem solving; and 4) mean achievement scores that sometimes reflect bimodal distributions in which many students are performing well or improving rapidly but many others, particularly those who are disadvantaged, are not (Levine and Stephenson, 1988; Brousseau, 1989).

Utilization of achievement criteria which allow for identification or designation of unusual effectiveness based on low-level learning is particularly pernicious because it can and does result in stress on correlates and practices that can negatively affect students' later performance. For example, because mechanical skills such as spelling and simple computation may be taught successfully through drill and seatwork, studies that classify schools as effective or improving based mostly on testing of mechanical skills may conclude or suggest that more stress should be placed on teacher presentation of material and passive seatwork even though other research indicates that more active student learning is required for meaningful long-range performance (Peterson, 1988; Presseisen, 1988; Porter, 1989; Jones and Idol, 1990). This tendency appears to be particularly worrisome with respect to low achieving disadvantaged students, for whom instruction already places a great emphasis on low-level drill and repetition in regular classes, Chapter 1, special education, bilingual education, and other remedial learning settings (Cazden, 1985; Allington, Stuetzel, Shake, and Lamarche, 1986; Shepard, 1989; Allington, 1990).

The preceding discussion and conclusions regarding the dangers and potentially negative consequences of utilizing achievement criteria emphasizing low-level, mechanical skills should *not* be interpreted as meaning these skills are of no importance. (Although many persons refer to these as "basic" skills, others use the term with reference to more complicated and functional skills like reading comprehension and math problem solving. Thus there is considerable confusion about "basic skills.") Children do need to master mechanical skills such as consonant and vowel differentiation and recognition, simple computation, and spelling, particularly in the primary grades. Indeed, many such skills must be mastered so well that they can be used automatically (Delpit, 1988). Even so, emphasis on mechanical skills mastery in testing can distort instruction toward subsequent overemphasis, particularly for students whose disadvantaged background is associated with relatively low scores and for those who did not master them in previous years through direct instruction, seatwork, and related aspects of traditional instruction.

Given the dysfunctional and counterproductive consequences which can result from selection of inadequate achievement criteria of effectiveness, we believe that researchers and practitioners should utilize the following guidelines to the extent possible in the future:

a. ***Performance on higher order learning should be separated from and treated as ultimately more important than performance in mechanical skills.*** Examples of utilization of this guideline include: emphasis on reading comprehension and math problem solving sections of standardized tests, rather than language mechanics and math computation; introduction of and

emphasis on newly developed assessment instruments focusing on higher order learning and thinking skills (Guthrie, 1987; Baron, 1989; Cooper, 1989; Ivens, and Koslin, 1989; Roeber and Dutcher, 1989); and insistence that tests utilized should be within most students' independent reading range so that one can obtain a meaningful measure of their levels of performance and functional learning strengths and weaknesses.

b. ***Performance on tests in the upper elementary grades should be stressed more than in the primary grades.*** Of course, there are some schools which enroll only primary students, usually in grades K-2 or K-3. In this situation, additional caution should be exercised in identifying effective and ineffective schools or assessing the impact of improvement efforts.

c. ***Analysis and interpretation should give explicit attention to testing phenomena and conditions likely to generate invalid identification and conclusions regarding unusually effective or ineffective schools.*** Among the most frequent sources of invalid identification or conclusions are the following: failure to examine the validity of unusually high gains reported at some schools (Armor, 1976); failure to take account of spurious effects of retaining a significant number of students in one or more grades (Gottfredson, 1988; Walker and Levine, 1988); failure to take account of floor (i.e. guessing) and ceiling effects in assessing the difference between pre- and post-scores; and utilization of tests which many students cannot read with comprehension. For example, use of the Tests of Academic Proficiency with low achieving secondary students generally will lead to the conclusion that their performance has not improved, even if they have been registering substantial gains. This error can be particularly destructive because it may reinforce teachers' tendencies to stress low-level skills on which some students score low largely because they cannot understand the test.

d. ***Whenever possible, make use of both norm-referenced and criterion-referenced tests.*** The advantages and disadvantages of each type of test have been widely discussed in recent years. For example, norm-referenced tests are unsatisfactory for some purposes because they assess a wide range of skills that may not have been emphasized in the classroom or may have been taught in earlier years, provide a misleading picture of the achievement level of students or groups of students far above or below the test norm, and generally do not provide adequate data for identifying objectives and skills that require further emphasis (Ivens, 1988; Binkley, 1989; Haney and Madaus, 1989; Neill and Medina, 1989). On the other hand, norm-referenced tests frequently provide the only available indicators of whether school or student performance is adequate compared with other groups of schools or students. Conversely, criterion-referenced, mastery tests frequently are superior to normed tests in determining whether performance is adequate and/or improving on the skills emphasized in instruction, and by focusing on whether students have mastered specific achievement objectives at a specified criterion level, mastery tests can be more useful than normed tests in identifying skills and objectives requiring further emphasis (Lezotte, 1986; Romberg, 1988; Brousseau, 1989).

e. ***If possible, multiple measures of students' social and economic background should be used to control for social class influences on achievement.*** Since the socioeconomic status (SES) of students typically is correlated with academic achievement, most school effectiveness research has controlled for SES in order to determine whether some schools are higher or lower than could have been predicted from data on student background. The most frequently used indicator, i.e. students' subsidized lunch status, frequently is of relatively little use in part because some principals are much more active than others in reporting students' status and designating students to receive assistance. In addition, many low income students are from single parent homes where the parent ranks high on educational measures of status. This could give misleading measures of SES. Some research suggests that use of multiple indicators of SES and related home/environment variables provides a better control for student background than do unidimensional indicators such as family income level or eligibility for federally subsidized lunch.

For example, one study of achievement in big cities found that measures of socioeconomic disorganization (e.g., percent of vacant housing, percent of adult

females separated or divorced), occupation (e.g., percent of employed persons classified as laborers), and poverty (e.g., percent of families below the poverty line) in neighborhoods served by elementary schools sometimes provided a much better prediction of school reading level than did the most commonly-used indicator portraying student eligibility for subsidized lunch (Levine, 1979). Using only the latter indicator to take account of social class would have resulted in glaring errors in identification of unusually effective or ineffective schools. School effectiveness studies which utilize multiple measures to control for student SES thus should produce more reliable identification of a smaller number of effective schools which then can be examined to assess the reasons for their success. Studies which are particularly outstanding on this guideline include those conducted by Armor and his colleagues (1976), Austin (1978) and his colleagues (Austin and Holowenzak, 1985), and Stringfield and Teddlie (1987) and their colleagues.

Data on students' racial/ethnic background also are useful and important in determining whether a school or group of schools is unusually effective. Researchers are not certain whether the entire achievement differential between high achieving nonminority groups and low achieving minority groups (e.g. black, Mexican American, Native American) is due to social class and related home environment differences, in part because social class is difficult to measure and may have different achievement dynamics for differing students or group of students. If some racial/ethnic minorities are additionally disadvantaged over and beyond the effects of SES, data on racial/ethnic composition can help control for this difference in assessing school effectiveness. Even if there were no such differential, moreover, data on racial/ethnic composition might still help in assessing social class differentials that have not been captured by available SES measures.

f. ***Except in special circumstances, identification and assessment of school effectiveness should be in accordance with data disaggregated by student SES and race/ethnicity.*** Advocacy of or insistence on disaggregation by social class and race/ethnicity has played a key part in research and school improvement efforts carried on by Brookover (1985), Edmonds (1978), Shoemaker (1984), Lezotte (1986), and other prominent individuals associated with the effective schools movement. Their central ideas in advocating this position have included a concern that failure to disaggregate can result in identification of schools as effective even though their working class students and/or minority students have unacceptably low performance, and a belief that calling attention to achievement discrepancies by social class and race/ethnicity can both point the way toward needed changes and begin to build in accountability for initiating such changes (Lezotte and Bancroft, 1985a; LeMahieu, 1988). (It goes without saying that one would not designate a school as effective if there is little differential by SES or race/ethnicity but all groups have low achievement.) What does research tell us about the validity of this position?

Although little systematic research has been conducted dealing explicitly with this disaggregation guideline, some studies indirectly support the importance and utility of disaggregation by social class and race. For example, studies conducted by Lark, Blust, and Coldiron (1984), Frederick and Clauset (1985), and Homiston (1988) found that identification of schools as effective based on misleadingly high average achievement levels compared with identification based on SES differentials resulted in substantially different classifications. Thus selection according to aggregated achievement averages actually does result in identifying some schools as effective even though their disadvantaged students have considerably lower performances levels with respect to fundamental learning skills. Such a result is not generally acceptable to educators concerned with enhancing equity in opportunities and outcomes as part of the effective schools movement (Brookover and Lezotte, 1981).

The major exceptions to the generalization that school effectiveness should be assessed at least partly in terms of the gap between middle class and disadvantaged students is the situation in which most of the students are either working class or middle class. Lacking meaningful data on levels of and trends in SES differentials at schools which are either predominantly working class or predominately middle class, assessment of school effectiveness in this situation is limited to determining whether achievement has

been improving, whether it is higher than at other similar schools, and whether it meets or exceeds specified target levels.

g. ***Gender differentials and interactions also should be examined in determining whether a school or group of schools is effective or is becoming more effective.*** Achievement data used to assess school effectiveness should be disaggregated by gender and gender interaction (e.g. black female, Hispanic male, working class male, etc.) as well as by SES and race/ethnicity. In part because the average achievement of females has tended to lag behind average male achievement in science and math and because performance in these subjects is becoming increasingly important for subsequent success in the educational system and the economy, it is important to determine whether these gaps have been or are being eliminated. In addition, some subgroups of students classified by SES, race/ethnicity, and gender appear to experience particularly severe problems in schools and society in the United States. For example, discouraging and even frightening data continue to be reported concerning the relatively poor educational achievement and attainment of black males, particularly in working class or poverty environments (Edelman, 1987; Wilson, 1987, 1989; Sawhill, 1989). Disaggregation of data by gender and gender interactions can help ensure that educators address issues that are increasingly critical not just to the effective schools movement but to U.S. society as a whole.

IV

Analysis and Discussion of Key Correlates

As noted above, much research on unusually effective schools supports the conclusions that they generally rank high on certain aspects of organizational functioning frequently referred to as "effective schools correlates." Recognizing that there are many potentially successful approaches for providing or improving such aspects of organizational functioning as positive school climate, capable leadership, or appropriate emphasis on important learning objectives, analysts usually have tried to identify correlates at a level of generality sufficient to allow for a variety of manifestations in practice while still pointing toward key specific aspects of school effectiveness. The purpose of this section is to clarify the meaning of some of the major correlates as indicated by research associated with the effective schools movement as well as other related areas of analysis and inquiry. The reader should note that most of the research cited in this section has been concerned with elementary and intermediate schools. Although such research generally is applicable to high schools, implications may be somewhat different because of their greater complexity and size. We will discuss research and issues dealing with effective high schools in a separate section examining context considerations in effective schools research.

Correlates of effectiveness can be and have been organized and subdivided within a large number of headings using diverse terminology. Our selection of terminology and headings in this section primarily reflects our judgment concerning the most effective and economical way to summarize and communicate the most important conclusions from this vast literature. Correlates and subcorrelates that will be discussed are shown in Table 1, page 10.

A. PRODUCTIVE SCHOOL CLIMATE AND CULTURE

1. Orderly Environment.

An "orderly, safe environment" conducive to teaching and learning" (Edmonds, 1982:4) and similar aspects of school climate frequently have been cited as an important effective schools characteristic, (e.g. Borger, Lo, Oh, and Walberg, 1985; Wayson, 1988). Citations of this correlate are found most frequently in descriptions and case studies of unusually effective schools (e.g., Sizemore, Brossard, and Harrigan, 1983; Taylor, 1984), whereas several studies distinguishing between more and less effective schools did not find it to be a discriminating factor (e.g. Brousseau, 1989). Wayson (1988) and his colleagues analyzed climate considerations at unusually effective schools and concluded that attainment of a safe and orderly environment is enhanced when discipline derives from "belonging and participating" rather than "rules and external control," consequences are fair and clearly communicated to parents, students, and staff, and "all adults are responsible for all students."

Upon reflection, perhaps it is not surprising that orderly environment appears to be a characteristic of unusually effective schools but does not necessarily differentiate between more effective and less effective schools. For one thing, this correlate frequently is not included as a separate dimension on some questionnaires used to assess effectiveness. Probably more important, there are many schools, particularly low SES schools, in which great gains and/or acceptable conditions have been registered on this

TABLE 1

Characteristics of Unusually Effective Schools

- **Productive School Climate and Culture**
  - Orderly environment
  - Faculty commitment to a shared and articulated mission focussed on achievement
  - Problem solving orientation
  - Faculty cohesion, collaboration, consensus, communications, and collegiality
  - Faculty input into decisionmaking
  - Schoolwide emphasis on recognizing positive performance
- **Focus on Student Acquisition of Central Learning Skills**
  - Maximum availability and use of time for learning
  - Emphasis on mastery of central learning skills
- **Appropriate Monitoring of Student Progress**
- **Practice-Oriented Staff Development at the School Site**
- **Outstanding Leadership**
  - Vigorous selection and replacement of teachers
  - "Maverick" orientation and buffering
  - Frequent, personal monitoring of school activities, and sense-making
  - High expenditure of time and energy for school improvement actions
  - Support for teachers
  - Acquisition of resources
  - Superior instructional leadership
  - Availability and effective utilization of instructional support personnel
- **Salient Parent Involvement**
- **Effective Instructional Arrangements and Implementation**
  - Successful grouping and related organizational arrangements
  - Appropriate pacing and alignment
  - Active/enriched learning
  - Effective teaching practices
  - Emphasis on higher order learning in assessing instructional outcomes
  - Coordination in curriculum and instruction
  - Easy availability of abundant, appropriate instructional materials
  - Classroom adaptation
  - Stealing time for reading, language, and math
- **High Operationalized Expectations and Requirements for Students**
- **Other Possible Correlates**
  - Student sense of efficacy/futility
  - Multicultural instruction and sensitivity
  - Personal development of students
  - Rigorous and equitable student promotion policies and practices

correlate, but little has been accomplished in improving academic achievement. In addition, research indicates that orderliness seldom is a major problem in schools that are relatively high in SES (Hallinger and Murphy, 1985, 1986); in this case it should not be expected to differentiate between more and less effective schools.

Support for the importance of orderly environment as a prerequisite for effectiveness can be found in: many case studies of "out-of-control" schools in which poor or ineffective discipline obviously hampers learning (e.g. Payne, 1984); descriptions of schools, particularly senior high schools in the inner city, in which systematic efforts to improve discipline clearly constituted a critical precondition in moving toward instructional effectiveness (e.g., Comer, 1980, 1987, 1988; Kozberg and Winegar, 1981; U.S. Department of Education, 1987; Levine and Eubanks, 1989); and descriptions of the sequence of events that occurred in schools that have become much more effective (e.g., Taylor, 1984; Stringfield and Teddlie, 1987). Actions taken at unusually effective schools to provide an orderly and productive climate typically include a broad array of vigorous activities (at a given site) such as the following:

- establishment of a "Mental Health Team" to bolster services for disruptive or maladjusted students and coordinate internal and external resources designed to help improve students' social skills (Comer, 1980, 1987, 1988, 1989).
- comprehensive plans to reduce absenteeism and truancy through improved record keeping, provision of individual and classroom rewards for improvement, having students telephone absent peers to encourage attendance, increased school/home contacts, and other actions (Levine and Eubanks, 1983; Pratte, 1989).
- development and implementation of rigorous discipline policies (McCormack-Larkin and Kritek, 1982).
- participation by faculty in Consistency Management training emphasizing discipline prevention strategies, student incentives and motivation, and related topics (Freiberg, 1989).

2. Faculty Commitment to a Shared and Articulated Mission Focussed on Improving Achievement.

Research on unusually effective schools indicates that faculty commitment to the task of helping all students master important learning objectives is a key considera-

tion differentiating between more and less effective schools. For example, case studies conducted by Brookover (1978:118) and his colleagues found that schools achieving above prediction were differentially characterized by "teachers' acceptance of responsibility for student achievement," and that this attitude was manifested in a variety of actions involving unusual commitment of their time and energy to help students succeed. Similar conclusions, though usually using slightly different terminology, have been reached by Clancy (1982), Murphy, Weil, Hallinger, and Mitman (1982), Sizemore, Brossard and Harrigan (1983), Taylor (1984), and others. Attitudes and actions involving intense commitment to helping all students learn are closely related to effectiveness correlates dealing with expectations and leadership, which are discussed elsewhere in this monograph.

Most or all schools have at least some teachers who are highly committed to helping students learn and who act in accordance with this belief in practice. What seems to distinguish unusually effective schools from less effective schools with similar student enrollment is the pervasive acceptance of this commitment throughout the faculty. It is difficult to assess this correlate using questionnaires to compare more and less effective schools because teachers seldom respond that they or their colleagues are not committed professionals. Perhaps for this reason, the commitment correlate has been better established through observational case study data than through more quantified data derived from questionnaires.

High commitment to improved achievement among all faculty in an unusually effective school seems to constitute a central part of their organizational culture, to the extent that in effect it not only defines their core mission but helps them cope with and overcome the many frustrations and obstacles encountered in striving to improve learning for all students. Thus Taylor's (1984) study of unusually effective elementary schools found that their principals had articulated and successfully communicated a central "criterion of effectiveness" emphasizing in one way or another that "All kids can learn" (pp.37-38). Equally or more important, principals of these schools not only had succeeded in making this criterion a core part of the school culture so that teachers actually behaved in accordance with its implications, but also had been able to develop and revise instructional and organizational arrangements leading to its attainment in practice. Leadership behaviors and attitudes that facilitated this success are discussed in another section of this monograph.

Examples of ways in which unusually effective schools have been described as operationalizing a clear mission emphasizing academic achievement include the following:

- at elementary schools in Milwaukee's RISE project, faculty have checked each student leaving the building to make sure that he or she takes materials home, cancelled recess during inclement weather which interferes with expeditious movement in and out of the classroom, and refused to take time from reading or math to teach extraneous subject matter (McCormack-Larkin and Kritek, 1982).
- at an unusually effective intermediate school in Los Angeles, for students who failed any subject parents were notified of their children's progress or lack of progress every week during the academic year (Levine, Levine, and Eubanks, 1984).
- unusually effective elementary schools studied by Sizemore and her colleagues emphasized "constant monitoring of student pacing and progress and the holding of conferences with the principal over stubborn cases" (Sizemore, 1987: 200).

3. Problem Solving Orientation.

Closely related to cultural norms focussing on improvement of learning for all students, administrators and faculty at schools identified as unusually effective in case study research have exemplified an attitude summarized in the dictum, "If what we are doing is not working for students, particularly low achievers, we will identify the obstacles we face and try something else that may overcome them." Thus observers at these schools have been struck by the problem solving orientation and capabilities of their administrators and teachers, and by their willingness to change existing practices and implement more effective approaches (e.g., Doll, 1969; Brookover, 1979; Levine and Stark, 1981; Sizemore, Brossard, and Harrigan, 1983; Taylor, 1984).

4. Faculty Cohesion, Collaboration, Consensus, Communications, and Collegiality.

Almost by definition, faculty members committed to a school-wide mission focusing on academic improvement for all students tend to exemplify greater cohesiveness and consensus regarding central organizational goals than do faculty at less effective schools. High cohesiveness also implies that such faculties may exemplify more and/or better communications which may both stimulate and reflect consensus and cooperation. As pointed out in extensive analyses by Purkey and Smith, (1983), Fuller and Izu (1986), Rosenholtz (1985), Cohen (1988), and others, cohesion and consensus are particularly important in organizations, such as schools, in which staff are challenged to accomplish a number of difficult and sometimes conflicting goals, means to accomplish them are not clear, and external as well as internal considerations tend to reduce goal clarity and to fragment improvement efforts. Many analysts also believe that "collegiality" is important in improving cohesion and communications, identifying and solving problems, and bolstering other aspects of effectiveness (Little, 1982; McCormack-Larkin and Kritek, 1982).

It is not surprising, therefore, to find that several case studies of unusually effective schools have identified cohesion, goal consensus, collaboration, collegiality, and/or superior communications (or similar concepts and terminology) as important considerations accounting for their success (e.g., Armor, 1976; Wilder, 1977; Clancy, 1982; Jackson, 1982; Sizemore, Brossard, and Harrigan, 1983; Taylor, 1984). However, such variables frequently have not differentiated between more and less effective schools in quantitative studies using data from questionnaires administered to teachers (e.g., Jackson, 1982; Brousseau, 1989).

Failure of questionnaire items dealing with cohesion, consensus, or related constructs in distinguishing between more and less effective schools may be due to difficulties involved in measuring such characteristics using paper-and-pencil instruments administered to teachers. Alternately, this failure may be due in part to tendencies for some schools average or below in effectiveness to score high on these aspects of climate, as might happen if they ranked poorly on other key correlates such as leadership (e.g., see data involving school mission presented in Gauthier, Pecheone, and Shoemaker, 1985), or to tendencies wherein some unusually effective schools score high but others do not. The latter pattern might well be connected with research cited elsewhere in this monograph indicating that effectiveness correlates may function differently in some types of schools than others.

5. Faculty Input in Decisionmaking.

Given the evidence cited above that unusually effective schools exemplify high rates of communications and an orientation focussed on solution of priority problems, it is no surprise that numerous researchers have found that such schools rank high on faculty input into decisionmaking (Borger, Lo, Oh, and Walberg, 1985). For example: Pollack, Watson, and Chrispeels (1987) reported that unusually effective schools in San Diego County scored high on collaboration in problem solving; Mortimore (1988) and his colleagues found that students in inner city London registered greatest progress in schools in which "the deputy and/or teaching staff were involved in decisions about the allocation of pupils and of teachers to classes" (Mortimore, 1988:225); principals of unusually effective urban schools portrayed in journal articles (e.g. Fliegel, 1971; Lonoff, 1971; Levine and Stark, 1982) and in systematic case studies (e.g., Duckett, 1980) have been described as having established mechanisms to provide for staff input; Newark elementary schools which gained most in achievement while participating in an effective schools project had higher scores on "participative" decision making than did lower achieving schools (Azumi; 1987); Levine and Eubanks (1983) described a successful inner city school in which teachers made decisions about assigning students to classes and whether grouping would be homogeneous or heterogeneous; Neidermer and Yelon (1981) described a project in which teachers at unusually effective schools systematically work together in selecting instructional objectives and determining time schedules; an unusually effective school studied by researchers in New York was characterized as exemplifying considerable shared decision making (State of New York, 1974); and compared with two less effective schools, two more effective schools described by Jackson (1982) had principals who solicited more faculty input in initial planning but

then insisted more vigorously on adherence to resulting guideline and decisions.

On the other hand, it is not clear that stress on faculty input always or usually has been a critical consideration in generating unusual effectiveness, nor is it clear whether input has been most valuable when defined narrowly in terms of solicitation of suggestions or broadly in terms of full partnership in decisionmaking. Most likely, the appropriate form for obtaining input and the extent to which it should be utilized depend heavily on considerations involving the personalities and experience of teachers and administrators, the types and urgency of problems they encounter, availability of external assistance for organizational development, and many other factors. High levels of faculty input may constitute the most important and viable vehicle for change when other initiatives have failed and/or outstanding leadership is missing. In recent years practically everyone concerned with public schools has been calling for greater teacher input in decisionmaking as a means to "empower" the profession and somehow revitalize the schools. Such efforts, which we discuss briefly in a later section, are unlikely to succeed unless serious attention is paid to other correlates of effectiveness described in this monograph.

6. *Schoolwide Emphasis on Recognizing Positive Performance.*

Several scholars who have reviewed effective schools research have concluded that unusually effective schools systematically and publicly recognize students who succeed academically and/or demonstrate other positive behaviors (Blum, 1984). For example, Purkey and Smith (1983:183) examined research on school culture and concluded that one of the cultural characteristics that contributes to effectiveness is "School-wide recognition of academic success: publicly honoring academic achievement and stressing its importance encourages students to adopt similar norms and values." Obviously related to expectations, leadership, focus on learning, and other correlates, schoolwide emphasis on recognition of academic success has been identified as a characteristic of some unusually effective schools in studies and school descriptions reported by Levine, Levine, and Eubanks (1984), Hallinger and Murphy (1985), Stringfield, Teddlie, and Suarez (1986), and Teddlie, Kirby, and Stringfield (1989). In addition, some studies have extended this characteristic beyond the academic realm in describing unusually effective schools that systematically recognize and reward pupils for citizenship, attendance, and other aspects of positive behavior (Levine, Levine, and Eubanks, 1984; Hallinger and Murphy, 1985, 1986).

However, some research also indicates that schoolwide emphasis on recognition of positive performance may be considerably more important in generating or supporting effectiveness in inner city schools with many low achieving students than in high SES schools in which performance is satisfactory and behavioral as well as academic norms already are positive or acceptable. Thus Hallinger and Murphy's (1985, 1986, 1987) study of unusually effective schools concluded that the "climate role" of principals in higher SES schools:

> was primarily to sustain existing norms, rather than to create new ones. . . In low SES schools the principal must ensure that the school overcomes societal and school norms that communicate low expectations to the student. . . [whereas in higher SES schools] school disciplinary and academic reward systems need not focus as much on short term accomplishments, rely as heavily on tangible reinforcers, or develop elaborate linkages between the classroom and the school (Hallinger and Murphy, 1985:3).

B. FOCUS ON STUDENT ACQUISITION OF CENTRAL LEARNING SKILLS

1. *Maximum Availability and Use of Time for Learning.*

As noted above, research on usually effective schools indicates that they are characterized by a climate in which committed faculty work together to emphasize mastery for all students. One of the clearest indications that a school functions in accordance with this characteristic (i.e. has an unmistakable and manifest mission supportive of excellence and equity) is evident in unusually effective schools in which faculty make sure that time needed for learning is provided and/or is "squeezed out" of the available schedule. Thus various authors have described unusually effective schools in which relatively little time

is expended in passing between classes, recess, fussing before starting a lesson, or other activities extraneous to learning (Anderson, 1982; McCormack-Larkin and Kritek, 1982; Blum, 1984; Brookover, 1979; Sizemore, Brossard and Harrigan, 1983; Sizemore, 1985, 1987; Stringfield, Teddlie, and Suarez, 1986; Love, 1988; Teddlie and Virgillo, 1988; Teddlie, Kirby, and Stringfield, 1989; Teddlie and Stringfield, 1989). Robert Blum and his colleagues (1984) have summarized various manifestations of this correlate as follows:

> Class starts quickly and purposefully, teachers have assignments or activities ready for students when they arrive. Materials and supplies are ready, too. . .Students are required to bring materials they need to class each day. Administrative matters are handled with quick, efficient routines that keep class disruptions to a minimum. . .There are smooth, rapid transitions between activities throughout the day or class (Blum, 1984:5).

Most of these sources describe unusually effective low SES schools, where time for learning seems to be particularly important because students require much instructional support and climate considerations frequently detract from efficiency, but the study by Stringfield, Teddlie, and Suarez contrasts a more effective middle SES school with a comparable less effective school. These authors found that faculty at the former school were much more insistent on maximizing learning time than faculty at its less effective counterpart. This study is also notable in that quantitative observational data were collected which supported this conclusion.

Parenthetically, we should note that over the more than two decades in which we have visited unusually effective low SES schools, we generally have been struck by their "no-nonsense" approach to the use of academic time. Compared with less effective schools, faculty in these schools waste relatively little time, and appropriate instruction generally begins at the first bell and proceeds right to the end of the school day. This does not mean, of course, that an isolated emphasis on maximizing time and its use is likely to produce higher achievement in the absence of other correlates, or that *how* time is used is unimportant. It probably is true, however, that emphasis on maximum allocation and utilization of learning time is a prerequisite for effectiveness, at least at schools with a high proportion of low achievers.

2. Emphasis on Mastery of Central Learning Skills.

Numerous studies and descriptions of unusually effective elementary schools have identified emphasis on mastery of academic content as an important aspect of their instructional programs. For example, Clancy's (1982) study of nineteen such schools in Michigan found that "Mastery Learning Put into Practice" and "Insisting on Concept Mastery" tied for fifth in a list of 48 "factors" which knowledgeable observers used to rank the reasons for their success. In some cases, unusually effective elementary schools have implemented a formal mastery learning approach utilizing a well-defined sequence of teach/test/re-teach/re-test (e.g., Gregory and Mueller, 1980; Abrams, 1985; Jones and Spady, 1985; Mamary and Rowe, 1985; Memahem and Weisman, 1985; Robb, 1985; Nagel, 1986; Block, Efthim, and Burns, 1988); in other cases a less formal approach has been used to ensure that non-masters are identified and given opportunities to receive help and assistance (e.g., Levine and Stark, 1982; Murphy and Waynant, 1989).

It should be noted that many schools nationally have been implementing Bloom-type mastery learning or other mastery-type approaches, with little or no noticeable impact on achievement. Schools attempting to implement mastery learning encounter many serious obstacles, as is true for any instructional approach, and as often as not mastery learning has been misimplemented or implemented largely on paper (Levine and Jones, 1988; Block, Efthim, and Burns, 1988; Burns and Kojimoto, 1989). Thus emphasis on mastery approaches is not likely to be successful in the absence of other effectiveness correlates, and emphasis on mastery should be viewed as a building block antecedent to rather than a "guarantee" of effectiveness.

The evidence indicating that emphasis on mastery is not effective unless it is carefully designed to deal with central learning skills is somewhat indirect. (Systematic studies of more and less effective schools have seldom if ever attempted to determine whether or to what extent skills for which teachers insisted on mastery involved relatively non-mechanical skills such as higher order comprehension and math problem solving.) Evidence

regarding the importance of linking mastery to central learning skills includes: research indicating that unproductive instruction for many low achievers typically emphasizes low-level, mechanical learning (e.g. Peterson, 1988; Allington, 1990)—a tendency which easily can be exacerbated rather than counteracted through misguided mastery approaches (Levine and Jones, 1988); data indicating that large achievement gains have occurred at many schools in districts, such as Kansas City, Milwaukee, Pittsburgh, San Diego, and Washington, D.C., in which skills to receive emphasis in a mastery framework have been carefully and systematically limited to a relatively small number in order to reduce or eliminate page-by-page teaching (with accompanying workbooks and ditto sheets) dealing with a host of mechanical skills (Levine and Eubanks, 1986-87; Levine and Havighurst, 1989; Levine and Ornstein, 1990); and research delineating large achievement gains among formerly low achievers receiving various approaches to "explicit comprehension instruction" focussing on key cognitive skills needed for independent learning (see Peterson [1988]; Presseisen [1988]; Cooper and Sherk [1989], Palincsar, Ransom, and Derber [1989]; Pressley [1989]; Winograd and Paris [1989]; and Idol and Jones [1990]).

C. APPROPRIATE MONITORING OF STUDENT PROGRESS

Research support for monitoring of student progress as an effective schools correlate probably is weaker in terms of providing specific guidance for practice than is true with respect to any other frequently cited correlate. Although many studies have identified such monitoring as a major characteristic of unusually effective schools (e.g., McCormack-Larkin and Kritek, 1982; Ferguson, 1984; Borger, Lo, Oh, and Walberg, 1985), there has been little agreement among researchers and analysts on how to define it in practice. For example, Mace-Matluck (n.d.:11) summarizes this correlate as "Pupil achievement is used as the measure for program evaluation", McCormack-Larkin and Kritek (1982:17) refer to the correlate simply as "Evaluation" and then mention "Frequent assessment of student progress on a routine basis," Mackenzie cites "continuous diagnosis, evaluation, and feedback" (1983:8), Brookover (1985:266) refers to "ongoing" [rather than frequent] monitoring of student progress. . . including diagnosis and regular feedback to pupils," Venezky and Winfield (1979) describe "careful" and "periodic" monitoring of student progress, Sizemore (1985:271) makes reference to "consistent monitoring of students' reading and mathematics progress"; and Mortimore and his colleagues (1988) find support for administrators' insistence on keeping and using records to analyze students' progress.

School and classroom polices and practices involving assessment of student progress clearly are important in providing data to "drive" school improvement efforts toward greater excellence and equity (Lezotte and Bancroft, 1985a), and almost by definition they are inherently important in discussing or implementing key effective schools characteristics (discussed elsewhere in this monograph) such as use of data disaggregated by SES in setting criteria for success, diagnosis of student mastery of key learning objectives to identify non-masters who need more help, avoidance of overemphasis on low-level mechanical skills, accelerated pacing of instruction for low achievers, and increasing cooperation with parents of students making unsatisfactory progress. Conversely, however, there is danger in using specific terms such as "frequent" or "continuous" monitoring of student progress because many schools mistakenly waste much time or even misdirect instruction through overtesting of mechanical skills, particularly as part of misguided or poor implementation of mastery learning approaches (Levine, 1985; Block, Efthim, and Burns, 1988; Shannon, 1989; Allington, 1990). Consequently, we chose to use the vague term "appropriate" monitoring of student progress in recognition of our conclusion that monitoring is an mportant correlate but the effective schools literature provides little specific guidance concerning how or how often it should be utilized.

Research on leadership in effective schools (which we discuss at length in a subsequent section) also supports the conclusion that monitoring of students' progress is an important effectiveness correlate. Thus Murphy reviewed available studies on effective instructional leaders and concluded that they "practice a wide variety of monitoring behaviors: they encourage the establishment and use of testing programs; they provide teachers with test results

with the staff as a whole and with grade level and/or departmental level staff and individual teachers; they provide interpretive analyses that describe the test data in a concise form for teachers; and they underscore the use of test results for setting goals, assessing the curriculum, evaluating instruction, and measuring progress toward school goals" (Murphy, 1989:16).

D. PRACTICE ORIENTED STAFF DEVELOPMENT AT THE SCHOOL SITE

Descriptions of unusually effective schools indicate that in-service training and other forms of staff development generally are on going activities which are carried out in large measure at the school site and focused on practical considerations in improving implementation of the instructional program and other school and district priorities (e.g. Fleigel, 1971; Lonoff, 1971; Austin, 1981; Glenn, 1981; Jackson, 1982; Jackson, Logsdon, and Taylor, 1984; Hallinger and Murphy, 1985; Menahem and Weisman, 1985; Crawford and Kimball, 1988; Mortimore, 1988; Wayson, 1988). Stedman (1987) has provided an excellent summary with examples of this emphasis on practical staff development at some of these schools as follows:

> . . . most used practical, on-the-job training that was tailored to specific needs of staff members and students. Effective schools gave demonstration lessons to inexperienced teachers . . . provided extra preparation periods for novices . . . [to allow them to observe] experienced teachers . . . videotaped teachers' performances to help improve instruction and evaluations . . . and helped teachers make selections of materials and teaching techniques . . . The emphasis throughout the inservice training was on the exchange of practical teaching techniques and on making training an integral part of a collaborative educational environment (Stedman, 1987:220).

Within this emphasis on practical, on going in-service training at the site, much of the staff development at unusually effective elementary schools has taken the form of both intra-grade and cross-grade level meetings and planning sessions at which teachers work together to improve coordination of instruction, select key learning objectives for a mastery oriented approach to instruction, determine how to improve the performance of individual students with problems, and otherwise work to attain important school-wide objectives identified elsewhere in this monograph (Levine and Stark, 1981; Ferguson, 1984; Wayson, 1988). Although most of the schools described in the studies cited above were inner city schools, Wick and Turnbaugh (1983) have described an intervention in middle class elementary schools at which intra-and cross-grade level meetings held to improve selection and assessment of skills emphasized in a mastery framework resulted in considerable improvement in student achievement.

Ongoing, practice oriented staff development at the school site is the antithesis of traditional in-service training, which remains today the most common approach used for staff development in elementary and secondary schools (Carter, Madison, Hall, and Lockamy, 1989). Traditional in-service training is characterized by "one-shot" presentations which fill up all or part of a day devoted to presentations by outside "experts" (Loucks-Horsley, undated). Occasionally the participants in this activity are designated as "trainers of trainers" who are expected to go back and teach their colleagues to use new methods and techniques effectively, even though they have not developed adequate skills for doing so and little if any time or other resources are subsequently devoted to follow-up and adaptation at the building or classroom levels. Traditional training of this kind is not just unproductive but is counterproductive, because it frequently manifests an "informal covenant" in which teachers agree to listen to speakers for a few hours, in return for administrators' agreement to leave them fundamentally undisturbed in their classrooms (Parish, 1981). Faculty at unusually effective schools participate in this charade relatively little, or not at all; instead, they are heavily involved in regular staff development that focusses primarily on providing assistance to improve classroom teaching.

E. OUTSTANDING LEADERSHIP

Although a few analysts have described isolated examples wherein the central leadership at unusually effective schools has been provided by someone other than the principal, the large majority of studies and examples identify the building principal as the most critical leadership determinant of effectiveness (e.g., Doll, 1969; Weber, 1971; Brookover and Lezotte, 1979; Duckett 1980; Glenn, 1981; Clancy, 1982; Jackson, Logsdon, and Taylor, 1983;

Sizemore, Brossard, and Harrigan, 1983; Taylor, 1984; Weiss, 1984; Hallinger and Murphy, 1985; Sizemore, 1985, 1987; High and Achilles, 1986; Ubben and Hughes, 1987; Crawford and Kimball, 1988; Teddlie, Kirby, and Stringfield, 1989). In addition, there appears to be considerable agreement regarding some of the leadership activities and emphases that are characteristic of unusually effective principals.

1. Vigorous Selection and Replacement of Teachers.

Research describing principals of unusually effective schools makes it clear, we believe, that they are much more likely than the average principal to assume and/or seize an important role in selecting teachers who will serve on their faculty and in transferring out those perceived as detracting from or, in some cases, not contributing to the effectiveness of the school (Doll, 1969; California State Department, 1977; Gregory and Mueller, 1980; Austin, 1981; Levine and Eubanks, 1983; Sizemore, Brossard, and Harrigan, 1983; Ferguson, 1984; Austin and Holowenzak, 1985; Wimpelberg, 1987b; Stringfield and Teddlie, 1987, 1988; Teddlie, Wimplelberg, and Kirby, 1987). In many cases, this function of leadership has required expenditures of large amounts of time and energy on the part of the principal, as well as willingness to test the limits of contractual provisions with teacher organizations and to challenge central office procedures and practices regarding assignment and removal of teachers. Actions of the principal with respect to selection and removal of teachers may be more salient and comprehensive at unusually effective low SES schools than at outstanding middle or mixed SES schools, but in our experience principals of unusually effective schools tend to emphasize this aspect of leadership regardless of SES context.

Emphasis on selection and removal of teachers appears to be front ended in the sense that it is most evident during the early years when a school is moving toward effectiveness (Stringfield and Teddlie, 1987). After the principal has registered significant success in constituting and/or motivating a faculty capable of working together to improve their effectiveness, turnover is reduced and faculty composition is stabilized. Given that teachers and their students now are experiencing much more success, capable faculty are easier to recruit and retain. Thus it is not surprising that several researchers who have portrayed unusually effective schools have remarked that their faculties are relatively experienced and stable (e.g. Glenn, 1981).

2. "Maverick" Orientation and Buffering.

Related to but expanding far beyond their willingness to initiate conflict or register disagreement with teachers or central office personnel regarding selection and removal of faculty, the principals of unusually effective schools frequently are administrative "mavericks" who are willing to "bend" rules and challenge or even disregard pressures or directives from the central office or other external forces perceived as interfering with the effective operation of their schools (e.g., Doll, 1969; Venezky and Winfield, 1979; Levine and Stark, 1981; Glenn, 1981; Huff, Lake, and Schaalman, 1982; Sizemore, Brossard and Harrigan, 1983; Sizemore, 1985, 1987; Stringfield and Teddlie, 1987). Actions of this type have been described as including refusal to utilize instructional materials required by the central office, unwillingness to participate in highly bureaucratized, mandated procedures dealing with teacher evaluation, "buffering" the school and its faculty from influential external agents even though this may generate criticism of the principal and/or the faculty, practicing "creative insubordination" when external regulations are dysfunctional, and violating central office guidelines on class size or other matters in order to provide resources for staff development, improve coordination of instruction, or accomplish other central school goals (e.g., 1969; Glenn, 1981; Sizemore, Brossard, and Harrigan, 1983).[1]

In general, buffering actions of the unusually effective principal tend to focus on protecting teachers from external forces that threaten to reduce their commitment and limit their effectiveness, particularly as regards the proliferation of paperwork chores which faculty experience as unnecessary and irrelevant. Unusually effective principals demand much from their faculty; by the same token, they are unwilling to tolerate unproductive external requirements that interfere with their teachers' capacity to meet these demands. For discussion and examples of the importance of this buffering behavior of outstanding leaders, see Rosenholtz (1985), Crowson and McPherson, (1987), and Rossman, Corbett, and Firestone (1988). This core aspect of the "maverick" orientation has been

described as follows in Glenn's (1981) summary of key leadership patterns displayed by principals of unusually effective schools: "The principals. . . [shielded effective teachers from] unreasonable demands from central offices, lay offs and irate parents when necessary. The principal's willingness to 'go to bat' for *good* teachers [orig. ital.] was mentioned again and again by staff we interviewed. Support by the principals encouraged staff to be effective and instilled willingness to trust the principal" (152-153). One can speculate that unless the principal is *first* or *also* proactive in selecting and removing teachers so as to build a competent faculty, buffering activities of the principal may largely protect incompetence and mediocrity and thereby detract from rather than contribute to greater effectiveness.

An important footnote related to maverick/buffering behaviors of principals of unusually effective schools is a qualification provided by Susan Everson based on her work with improving schools cooperating with the Mid-Continent Regional Educational Laboratory. Everson reports that principals and others in less effective schools frequently blame the central office or other external forces for many of the problems they encounter, whereas principals of more effective schools are careful not to magnify obstacles and blame outsiders to the extent that they become an excuse used to justify failure to improve (personal communication, November 10, 1988).

We should stress here, as we do with respect to several other generalizations in this monograph, that the findings reported above on selection of teachers and buffering by principals are drawn mostly from studies of unusually effective inner city schools, and may not apply as clearly, forcefully, or frequently to other types of schools. Theoretically, there should not be as much need for principals to shape faculty membership and buffer faculty from external forces at middle or mixed class schools as at inner city schools in which achievement is clearly unacceptable and many external agents more frequently try to mandate simplistic solutions which interfere with efforts to construct a cohesive, potentially effective improvement approach. In addition, it is possible that recent or future movement toward greater school-site decision-making (discussed in a later section of this monograph) may reduce the need for maverick and buffering behavior on the part of principals (Dutweiler, 1988; Raywid, 1989), and thereby enhance the effectiveness of those who are interested in improving their schools but are not willing to take the risks that now may be necessary in terms of violating central directives and mandates.

3. Frequent, Personal Monitoring of School Activities, and Sense-Making.

Nested within the solidly supported conclusion that the principal usually is a key factor in accounting for leadership behaviors associated with school effectiveness is the equally well supported finding that one aspect of these behaviors involves frequent visits to classrooms combined with constant personal surveillance of activities taking place in the school (Lezotte, 1983; Ubben and Hughes, 1987). This particular aspect of the principal's leadership in unusually effective schools has emerged as a correlate in virtually every study in which it has been included as a variable (e.g. Armor 1976; Brookover, 1977; Felsenthal, 1982; Huff, Lake, and Schaalman, 1982; Jackson, 1982; Sizemore, Brossard, and Harrigan, 1983; Taylor, 1984; Teddlie, Falkowski, Stringfield, and Garvue, 1984; Austin and Holowenzak, 1985; Pollack, Watson, and Chrispeels, 1987; Crawford and Kimball, 1988; Mortimore, 1988; Teddlie, Kirby, and Stringfield, 1989).

We hasten to emphasize that this aspect of leadership at unusually effective schools does *not* necessarily involve systematic clinical supervision arrangements wherein principals spend large amounts of time in extensive, formally scheduled observations and pre- and post conferences with their teachers (Murphy, 1989). Principals of unusually effective schools may or may not spend some time in clinical supervision, but they seem unwilling to devote inordinate amounts of time to this activity when doing so distracts them from more important issues, even when the central office directs them to emphasize clinical supervision (Sizemore, Brossard, and Harrigan, 1983).

Instead, research on unusually effective schools indicates that their principals are frequently in and out of classrooms (usually at least once a day in elementary schools), the lunchroom, and other facilities, and often converse with staff in short conversations in hallways, lounges, and elsewhere. This pattern of short and unpredictable classroom visits and conversations exemplifies what Peters and Waterman (1982) call "Management by

Wandering Around" in describing the activity of outstanding managers in business (also see Barnard, 1938 and Lorsch, 1987). Referred to as "Genbashugi," it also is a core Japanese management principle which involves "being on the spot" to assure high-quality output in all phases of organizational functioning (Impoco, 1988). Deal and Peterson (1990) have pointed out that frequent movement through the school is one of the ways in which the principal can shape its organizational culture.

As elsewhere in this monograph, we must stress the conclusion that a single correlate such as frequent, personal monitoring by the principal cannot be expected to have much impact in the absence of other correlates. Thus it is not surprising that there are ineffective principals who constantly "wander around" what are still essentially ineffective schools.

Taylor (1984) has pointed out that the effective principal's propensity to appear frequently for short periods of time on an unscheduled basis in classrooms and elsewhere helps enable him or her to effectuate the "sense-making" function of leadership, that is, to figure out what is taking place in an uncertain and complex situation and determine what short- and long-range actions may contribute to attainment of the school's priority goals—particularly it's "criteria of effectiveness" focussing on improvement in learning for all students. Principals skilled in this endeavor exemplify a "knowledge-in-action" that enables them to recognize and overcome complicated obstacles to effectiveness, even though they may not be able to articulate a clear theoretical explanation of what they are doing.[2] (Also see Argyris, 1980, for a discussion of "theory-in-use", as contrasted with "espoused theory.") Equally important, the effective principal's frequent "strategic dialogue" with faculty enables him or her to continually focus and refocus staff efforts on strategic efforts central to attainment of the school's mission (Taylor, 1984; also see Vaill, 1984).

Of course, visiting classrooms frequently and engaging in regular strategic dialogue with teachers and other persons does not by itself ensure that a school will be unusually effective; other correlates of effectiveness identified in this monograph and other sources also must be present. But the importance of the principal's behavior involving frequent personal monitoring and sense-making is apparent in Taylor's analysis of the function of strategic dialogue and its place in the school improvement efforts taking place in the inner city and middle class elementary schools included in her study:

> The unit of strategic dialogue allows the principal to gain knowledge of the dimensions of the problem. He finds out just what the teacher's attitude towards the problem consists of, where the student's performance has fallen down, how the teacher plans to rectify the situation (Does she have sufficient knowledge to solve this problem?), if school resources can help. If any answers to these questions are uncertain, then he must probe further, or 'put it on the back burner for a while'. . .We are observing at the school site level, in schools where improvement programs are thriving, an ongoing trial and error, experimental program, brought to bear by the principal and staff on the academic and behavioral pursuits of the students (Taylor, 1984: 70-72).

4. High Expenditure of Time and Energy for School Improvement Actions.

Producing and maintaining large gains in achievement is a difficult and complex task that generally requires the expenditures of much time and energy on the part of the principal and other school leaders. Thus several case studies of unusually effective schools have remarked on the tendency of their principals to work very long hours in hectic activities that deplete their physical and mental energy (Doll, 1969; Venezky and Winfield, 1979; Levine and Stark, 1981; Manasse, 1984).

High expenditure of time and energy by principals and other leaders of unusually effective schools exemplifies an effectiveness correlate which is not limited to education but has been described as a key leadership characteristic in many other types of organizations. For example, Vaill's (1984) analysis of "high-performing systems" in various fields concluded that their leaders "put in many hours" and seem to have their "consciousness. . .dominated by issues and events in the system" to the extent that their hard work and the singleness of purpose it represents take on "mythic" proportions in the system (Vaill, 1984:94-95). In itself, the hard work of the leader thus can help communicate his or her "focus" on key variables involved in improving the system, as well as the intense personal concern and emotional commitment (i.e. "feeling") that motivates the leader in working toward this goal. Thus Vaill concluded that "time," "focus,"and "feeling" dimensions of leadership behavior all contribute to "constant purposing" through which leaders guide development of high

performing systems (Vaill, 1984, 1989). Similarly, Peters and Austin (1987) have described the leader of an unusually effective organization as one who "arrives early" and "stays late", is willing to do the "dog-work" when necessary, and is "focussed" to the "point of monomania" on the organization's values and objectives (Peters and Austin, 1987:419).

Several comments are relevant at this point regarding the high expenditures of time and energy characteristic of principals of unusually effective schools. First, hard work by itself is insufficient, as indicated by the fact that many principals of less effective schools work equally long and difficult hours. Other actions and organizational characteristics as discussed elsewhere in this monograph also must be present. Second, it is difficult to obtain valid data on principals' comparative expenditures of time and effort except through expensive observations that assess leadership behaviors over relatively long periods of time; perhaps for this reason, this variable generally has not been included as a consideration in most effective schools studies. Third, there undoubtedly are ebbs and flows in the time and energy expenditure patterns of unusually effective principals, in accordance with contextual variables such as length of his or her tenure in the school and extent of turnover in faculty. Finally, it is not now and perhaps never will be very clear whether high expenditure of time and energy is more important as a prerequisite for handling the difficult tasks inherent in improving schools or as a means to communicate and spread commitment in the organization, or is equally important for both purposes.

5. Support for Teachers.

Several portrayals of leadership at unusually effective schools have described their principals as providing large amounts of support for their teachers (e.g., Doll, 1969; Glenn, 1981; Levine and Stark, 1981; Rosenholtz, 1985; Sizemore, 1985; Crawford and Kimball, 1988; Murphy, 1989). Supportive behaviors of these unusually effective principals include both emotional encouragement and practical assistance in acquiring materials, handling difficult teaching assignments, and otherwise working to function successfully as a member of a motivated faculty. Levine and Stark (1982:45) interpreted this orientation as representing "a pervasive concern for problems teachers face everyday...and an attempt to perceive problems and respond with understanding of the teacher's point of view".

In addition, research dealing with the role of the principal in school improvement (Leithwood and Montgomery, 1982) and with major considerations that determine the success of improvement efforts in general (Cox, French, and Loucks-Horsley, 1987) also has concluded that *support* (or similar constructs) is a crucial factor in effective leadership at the school building level. After reviewing data from large-scale studies on innovative schools, the latter authors concluded that because "leadership" and "support" are so closely linked, they are inseparable in practice (Cox, French, and Loucks-Horsley, 1987:5). Many of the "support functions" for which the leader is at least partly responsible involve the provision of resources, technical assistance, and staff development for teachers (Cox, French, and Loucks-Horsley, 1987:30).

6. Acquisition of Resources.

Perhaps related to their orientation involving provision of emotional and practical support for teachers, principals of unusually effective schools also have sometimes been described or have described themselves as going to great lengths to obtain additional resources for their schools (Venezky and Winfield, 1979; Glenn, 1981; Huff, Lake, and Schaalman, 1982; Leithwood and Montgomery, 1982; Blum, 1984; Murphy, 1989). Strenuous efforts to obtain resources required to attain or enhance effectiveness involve a wide range of activities such as writing of grant proposals, solicitation of funds or other resources in the community, stretching and bending rules along with skillful politics aimed at acquiring all possible district resources, and in-school fund raising. The unusually effective principal's stress on acquisition of resources also appears to be related to other effectiveness correlates such as his or her maverick risk-taking, a problem solving orientation marked by willingness to try alternate approaches when current ones are not working, and high expenditure of time and energy to ensure success in attaining school goals.

7. Superior Instructional Leadership.

Like the larger body of research on effective schools, research on leadership behaviors which contribute to

instructional effectiveness has been hampered by methodological issues involving difficulties in establishing causal relationships, uncertainties concerning generalizability across differing types and levels of schools, disagreement about appropriate statistical analysis, questionable interpretations in moving from theoretical explanations to advice for practice, and other matters (Zirkel and Greenwood, 1987; Grady, Wayson, and Zirkel, 1989; Murphy, 1989). Nevertheless, a large amount of research has been conducted on instructionally effective leadership, and enough has been learned to provide some practical guidance for principals and other school leaders (e.g. Blum, 1984; Lane and Walberg, 1987).

Instructional leadership is a very large topic that we cannot attempt to treat comprehensively in this monograph, though numerous other sections such as those dealing with testing, curriculum pacing, and grouping of students have clear implications regarding the instructional focus and behaviors of principals and other leaders. Fortunately, Joseph Murphy (1989) recently analyzed and summarized much of the literature on instructional leadership. Many of the topics which he discusses are considered under other headings in this monograph; the reader can examine Murphy's summary for more information about others. After reviewing the literature in eight "related areas" of research bearing an instructional effectiveness[3], Murphy concluded that instructionally effective leaders tend to be outstanding with respect to four major dimensions subdivided into specific administrative "functions" as follows:

a. ***Developing Mission and Goals—framing*** a limited number of well defined goals that apply to all children in the school and actually are used for planning and decision making; ***communicating*** schoolwide goals effectively to all school constituencies.

b. ***Managing the Educational Production Function—promoting quality instruction*** through knowledge of considerations that promote high achievement along with skill in translating this knowledge into management practices dealing with important school issues; ***supervising and evaluating*** instruction in a manner that affects classroom practice, particularly through provision of feedback and "indirect methods" such as informal observations and meetings; ***allocating and protecting instructional time*** through setting time allocations in all classes, ensuring coordination of time usage among teachers, allocating relatively large amounts of time for instruction, and reducing interruptions and other threats to instructional time; ***coordinating the curriculum*** effectively based on knowledge of "technical core operations", particularly those involving the "specification, alignment, and coordination of curricular programs", attainment of continuity across grade levels, and provision of consistency within and between various regular and special support services; ***promoting content coverage***, including extension of content coverage through development and enforcement of "policies that require regular homework assignments"; ***monitoring student progress*** using a wide variety of monitoring behaviors and both standardized and criterion-referenced testing.

c. ***Promoting an Academic Learning Climate—establishing positive expectations and standards***, particularly for previously low achieving students; ***maintaining high visibility*** on the campus and in classrooms; ***providing incentives for teachers and students*** through rewarding and otherwise recognizing teachers for their efforts through schoolwide as well as private systems, delegating appropriate responsibilities, and making sure that a high percentage of students receive recognition and rewards, particularly for academic performance; ***promoting professional development*** of teachers, particularly through schoolwide staff development, opportunities for professional dialogue, and "incidental interventions" that motivate and assist teachers' daily efforts.

d. ***Developing a Supportive Work Environment—creating a safe and orderly environment*** which includes a consistent and well coordinated discipline program and involves clear rules that are understood by all, are fairly and consistently enforced, and integrally connect the school and the classroom; ***providing opportunities for meaningful student involvement*** in school activities; ***developing staff collaboration and cohesion*** through collaborative processes that "bring staff together to plan, make decisions, and resolve conflicts about instruction and curriculum"; ***securing outside resources in support of school goals*** and related assertive action; ***forging links between the home and the school***, particularly with respect to the school's primary mission of educating students.

8. Availability and Effective Utilization of Instructional Support Personnel.

With the possible exception of a tiny handful of nearly superhuman individuals assigned to very small elementary schools, principals require assistance from one or more instructional support persons if they are to function with adequate success as instructional leaders. Given the wide range of concerns (e.g., multiple effectiveness correlates, diverse aspects of instructional leadership as indicated above) that require attention in working to enhance student performance, it is virtually impossible for a principal to orchestrate a successful improvement campaign without substantial on-site assistance. Evidence for the importance of instructional support personnel at unusually effective schools has been provided by a Los Angeles study in which schools that gained most in achievement used some of their discretionary budget to provide "resource staff to assist teachers" (Armor, 1976:28), a Georgia study of unusually effective districts (Glickman and Pajak, 1986), a London study in which deputy headmasters (i.e., assistant principals) played a "key role" in accounting for unusual effectiveness (Mortimore, 1988), Menahem and Weisman's (1985) description of the contributions of 6 central office reading specialists and a full-time staff developer at each school in bringing about large achievement gains at 27 inner city schools in Brooklyn, and Glenn's (1981) study of effective elementary schools at which substantial contributions were made by grade-level leaders, on-site curriculum specialists, and other specialized instructional support personnel (Glenn, 1981: 149-151).

Many of the effective schools we have observed during the past twenty-five years would not have been successful but for the contributions of Chapter 1 site coordinators, part- or full-time staff developers, assistant principals focussing on instruction, and other specialists who helped provide instructional leadership. In a number of these cases, principals had persuaded or coerced teachers to accept larger classes in order to create a position equivalent to assistant principal for instruction or full-time staff developer. (Some of these principals were mavericks who therein violated school board policies without official approval from central decisionmakers.) Availability and effective utilization of instructional support personnel has not been adequately examined as a variable in most effective schools research, perhaps in part because researchers frequently assume that principals have adequate assistance and partly because such assistance typically is provided by a diverse mixture of full- and part-time staff with varying titles and responsibilities.

F. SALIENT PARENT INVOLVEMENT

For several reasons, parent involvement has been a difficult variable to assess or identify as an effectiveness correlate. First, involvement is so highly correlated with SES (Ascher and Flaxman, 1987) that controlling for SES in regression studies frequently eliminates its relationships with achievement. In addition, even if a relationship remains, it may be questionable whether the researcher controlled adequately for SES and related variables.

Second, there are many forms and varieties of involvement, thus making it difficult to define or measure. Third, involvement seems to have received little attention in some studies, perhaps in part because many leaders of the effective schools movement worried that emphasis on parent involvement might become a form of blaming the victim through minimizing educators' responsibility for introducing effective reforms (O'Neill and Shoemaker, 1989).

Research generally supports the conclusion that it is desirable and important to enhance parents' involvement in education and to have high levels of school and home cooperation (Walberg, 1984; Ascher and Flaxman, 1987; Henderson, 1988). However, as regards research specifically related to parent involvement and school effectiveness, some studies either have failed to find support for a relationship between involvement and unusual effectiveness or have concluded that less effective schools may have *more* involvement of some kinds than more effective schools (Brookover and Lezotte, 1979; Hallinger and Murphy, 1985, 1986, 1987). Such studies undercut any generalization to the effect that all or even most unusually effective schools also rank unusually high on parent involvement. In addition, some researchers who have portrayed unusually effective schools have not perceived (or at least have not recorded) particularly high levels of involvement. In our experience, no know-

ledgeable observer disagrees that parent involvement can be a potent force in helping to improve schools or even that many or most unusually effective schools have relatively satisfactory levels of involvement, but this characteristic may not differentiate them from many less effective schools, which have not dealt as successfully with other correlates.

On the other hand, several studies comparing more and less effective schools have reported that effectiveness is positively associated with involvement. For example, Armor and his colleagues found that among predominantly black (but not Hispanic) elementary schools, gains in achievement after controlling for SES were greatest at schools with high "school/community integration" as indicated by data showing that parents were "in and around the building fairly continuously", "included on planning and monitoring committees for all school events and activities", active participants in school advisory councils, and well-organized (Armor, 1976: 54-55). ("Parents' visits" in this study were not independently associated with effectiveness.) Similarly, Mortimore and his colleagues reported that elementary students in inner city London made greatest progress at schools in which "parents helped in the classrooms. . .[and with] outings and. . .other kinds of assistance", "regular progress meetings [were held] for parents to discuss their children's work", rooms or other facilities were provided for parents' use, and parents were allowed to "call in at any time to see the head" (Mortimore, 1988:226). (However, parent involvement in this study was correlated with other important climate variables which apparently were not controlled in explaining achievement.)

In addition, numerous authors have described high levels of parent involvement in portrayals of unusually effective schools (Borger, Lo, Oh, and Walberg, 1985; Comer, 1980, 1988, 1989). Stedman summarized general parent participation activities in some of these schools as involving "good communications between the school and the home," facilitation of parents' involvement "in their children's learning," "getting parents politically involved on behalf of the school," garnering "vital parental support for the school's daily academic efforts," and, in some cases, sharing in school governance (Stedman, 1987:219). Specific ways in which parents have been described as having been part of improvement efforts at unusually effective schools include the following:

- "exerting pressure on public officials" in order to help obtain and retain resources (Fliegel, 1971:342).
- participating in school meetings designed to promote use of "games and other instructional materials at home" and to "improve their youngsters' attitudes toward school and learning" (Ferguson, 1984:630).
- helping maintain an orderly climate in the lunchroom and the schoolyard (Lonoff, 1971:339).
- participation in signing of annual contracts specifying rigorous discipline policies for their children and of weekly progress reports describing their son's or daughter's mastery or non-mastery of skills taught that week (Levine, Levine, and Eubanks, 1984).
- sitting in classrooms (as encouraged by the principal) in order to "observe and monitor teacher performance and student learning" (Sizemore, Brossard, and Harrigan, 1983:16).
- attendance in small groups at bimonthly meetings at which the principal of a Chicago elementary school discussed their childrens' progress (Levine and Eubanks, 1983).
- participation in a parental group which helped buffer the school from other parents attempting to change school policies (Sizemore, Brossard, and Harrigan, 1983:16).
- informing the administration when homework is "make-work" rather than productive assignments coordinated with classroom instruction (Levine and Stark, 1981, 1982).
- helping their children use local library resources which teachers had identified as useful for school work (Levine and Stark, 1981, 1982).
- participation in a "building-level governance and management group" particularly involved in planning "programs sensitive to child development and behavior principles" (Comer, 1987:15).
- helping supervise a home learning program in the summer (Glenn, 1981).

On the one hand it is hard to find any common denominator in the foregoing examples of parent involvement at unusually effective schools, no doubt because there are many diverse ways in which schools can and do promote

positive parent involvement. On the other hand, examining case studies of unusually effective schools with high parent involvement and/or visiting such schools in person suggests to us that they have identified and emphasized parent involvement activities that are somehow particularly salient in terms of the most serious problems they face at a given point in time. (We do not regard this assertion as one that we are able to "prove.") Stated differently, more seems to be happening than some general effort to increase parental communications or build more positive school and home relationships.

It should be noted that all of the studies and examples cited above dealt entirely or predominately with inner city schools. Most likely, parent involvement is potentially more salient at low achieving schools enrolling mostly poverty or working class students than at middle class schools in which both achievement and involvement already tend to be high (see Hallinger and Murphy, 1986). If so, it is logical to view parent involvement as a particularly important consideration in working to enhance effectiveness at inner city schools, though faculties must determine what forms of involvement are likely to be most helpful in their particular setting and must still be sure to protect their mission against potentially destructive community influence (see our earlier section on the importance of "buffering" by principals). And, as is true with respect to other effective schools correlates, no one should expect that bringing about an increase in salient parent involvement will have much if any influence on achievement in the absence of successful efforts to correct weaknesses involving other correlates. Nonetheless, as Cotton and Wikelund (1989) note, parent involvement may have strong positive effects on student affective outcomes and parent attitudes toward the school.

G. EFFECTIVE INSTRUCTIONAL ARRANGEMENTS AND IMPLEMENTATION

1. Successful Grouping and Related Organizational Arrangements.

Research on unusually successful schools indicates that, in one way or another, they have devised and implemented arrangements to group students effectively for instruction and to utilize staff and other organizational resources in a manner that helps students, particularly low achieving students, succeed academically.

Grouping of students is an extremely complex issue both theoretically and practically (Burns, 1987; Passow, 1988; Noddings, 1989). Practitioners and researchers must deal with a host of complicated and interrelated considerations involving such questions as the following: how much spread in prior achievement should there be within and across classes?; on what criteria should students be grouped?; should students be grouped homogeneously in some subjects, such as reading, but not others?; which teachers function best with which students?; how can disadvantages of homogenous or heterogeneous grouping be overcome if a school goes in one direction or another?; how do class size, availability of material, sequencing of learning objectives, and other considerations affect teachers' capacity to implement homogenous or heterogeneous grouping successfully?; how can productive pacing of instruction be attained and maintained in either homogenous or heterogeneous groups?; and, how do differing groups of students react to alternate arrangements?

Descriptions of unusually effective schools indicate that, among other arrangements, some use mostly homogenous grouping, some group students almost entirely on a heterogenous basis, some use homogeneous grouping within classes and others group across classes or use a combination of both approaches, some individualize instruction substantially or teach students in small groups and re-group frequently, others emphasize whole-class instruction in groups that are either relatively homogeneous or heterogenous, some use grouping arrangements that differ from grade-to-grade or teacher-to-teacher, and still others utilize practices different from any of those alluded to above. A sense of this wide variation has been provided in the following description by Brookover and Lezotte (1979) in their study of Michigan elementary schools that had improved substantially in achievement over a three year period:

> Although there is substantial variation between the six schools that made significant gains in achievement, there are some relatively common characteristics. . . [but very little] can be said about the common organizational characteristics. They vary from very traditional self-contained classrooms to somewhat open pod organization with team teaching. Various types of both homogenous and heterogeneous grouping of students are used and various degrees of emphasis are placed on individualized instruction (Brookover and Lezotte, 1979:62).

Several studies have concluded that one of the characteristics of an unusually effective school is that it has introduced and implemented workable arrangements for helping low achievers (Levine and Stark, 1981, 1982; Sizemore, Brossard and Harrigan, 1983; Levine, Levine, and Eubanks, 1984; 1985). In conformity with generalizations offered above, grouping arrangements at schools described in these studies have been diverse, but in general they have been particularly focussed on helping low achievers and have been designed and implemented carefully and with determination and intelligence to attain this overriding goal. Among unusually effective arrangements which have been described in case studies or in related analysis dealing with instructional interventions for low achievers are the following:

- "parallel classes" of the lowest readers who receive special help in small classes (Levine and Stark, 1981, 1982; Glickman and Pajak, 1986).
- "parallel scheduling" of reading so as to offer instruction in small groups for students grouped by previous achievement (Canaday and Hotchkins, 1985; Canady, 1988, 1989).
- individualized and small group instruction in schools which have sufficient resources, commitment, and leadership to make this approach workable (Fliegel, 1971; Mamary and Rowe, 1985).
- assignment of two teachers to classes of Chapter 1 students with low reading achievement (Levine, Hollingsworth, and Aquila, 1987).
- "creative staffing arrangements" that assign students to small groups taught by regular and specialized faculty (Cotton, 1989).
- provision of daily one-on-one tutoring provided by highly trained, skilled teachers for low achieving readers in the first grade (Lenz, 1988; Pinnell, 1988a, 1988b; Reading Recovery Project Staff, 1988; ERS, 1989).
- extensive use of certified teachers to help provide tutoring in reading and small group reading instruction in the primary grades (Madden, Slavin, Karweit, and Livermon, 1989).
- a variety of developmental and remedial learning opportunities during or outside the regular school day (e.g. Sizemore, Brossard and Harrigan, 1983; Murphy and Waynant, 1989).
- reduction of primary grades class size to 20-22 or less at inner city schools (Stevens, 1988; Groom, 1989; Murphy and Waynant, 1989).
- placement of non-promoted students in transitional classes or units taught by teachers specially selected, qualified, and trained to help them improve and return to their previous cohort (Carter, Madison, Hall, and Lockamy, 1989; Sudlow, 1989).
- placement of low readers in school-within-a-school units taught by teachers specially selected, qualified, and trained to help them improve in comprehension skills (Gooden, Lane and Levine, 1989; Levine and Sherk, 1990).
- provision of special help in algebra during time formerly devoted to study halls and physical education in order to make sure that initial low achievers perform adequately in this critically important "gate keeping" course (Sudlow, 1989).
- provision of tutoring, afterschool, and/or summer school developmental learning opportunities to introduce learning skills and materials *before* their introduction in regular classrooms, in order to plug gaps in students' prior knowledge and thereby reduce demotivating failure experiences and the necessity for remediation for non-mastery students. (An unusually effective intermediate school which is making some use of this approach and therefore to an extent modifying the usual formative testing/corrective instruction sequence is described in Smith, 1985.)
- utilization of paraprofessionals to provide additional help for low achievers (Venezky and Winfield, 1979; Glenn, 1981).
- sponsorship of a Saturday Learning Clinic for low achievers (Stevens, 1988).
- "Walking Reading" or related approaches through which elementary students are grouped across or within grades by current performance level during a common reading period (Sizemore, Brossard and Harrigan, 1983). (Some schools also use this arrangement for math or other subjects.) Several unusually effective schools using this arrangement are described in Levine and Stark, 1981.

This monograph cannot provide a comprehensive analysis and discussion of all the important issues and research involving grouping of students and related aspects of organizational arrangements, but a number of considerations and conclusions that are most important for educators involved in efforts to improve school effectiveness are discussed briefly in the following pages.

a. ***Improvement of grouping and related organizational arrangements at unusually effective Chapter 1 schools frequently has involved reduction or elimination of pullout approaches.*** Potential and actual detrimental effects of pullout in Chapter 1 and other remedial or special needs programs have been widely recognized during the past decade (e.g., Cooley, 1981; Lytle, 1988; O'Neill and Shoemaker, 1989). Among these detrimental effects are confusion in school scheduling and functioning, unclear accountability for student progress, multiplication of record keeping chores, and lack of coordination between regular and compensatory instruction (Cooley, 1981; Levine, 1985; Allington, 1990). Although some unusually effective Chapter 1 schools have found ways to overcome these problems and implement pullout successfully (for an example, see Kimball and Crawford, 1988), it appears that many or most have reduced or eliminated pullout in favor of other Chapter 1 approaches that generally are easier to implement effectively. (For examples, see Venezky and Winfield, 1979; Levine and Stark, 1981; and Levine, Holdsworth, and Aquila, 1987.) In particular, several school improvement projects that have had considerable success across a number of schools have included policies for project wide reduction of pullout arrangements (Levine and Stark, 1981; McCormack-Larkin and Kritek, 1982; Eubanks and Levine, 1983), thereby perhaps suggesting that it may be more feasible to go in this direction than to try making pullout workable across a significant number of Chapter 1 schools.

Recognizing that Chapter 1 pullout is difficult to implement effectively and frequently has not been successful, Congress has made it much more feasible to utilize so-called "schoolwide" approaches which can reduce or eliminate pullout at schools serving 75 percent or more low income students. This recent 1988 legislation offers a marvelous opportunity for eligible schools to move decisively toward greater effectiveness through improving their organizational arrangements for dealing with low achievement (Lytle, 1988).

b. ***Class size and, particularly, the number of low achievers per class are important considerations in working to provide effective grouping and related organizational arrangements.*** Research on class size constitutes a sizable literature that we cannot attempt to review comprehensively in this monograph, but several studies and conclusions which seem most salient for the effective schools process can be summarized as follows:

- although there still is considerable disagreement concerning relationships between class size and achievement (Slavin, 1983), many analysts have concluded that substantially reducing the student/teacher ratio to 20 to 1 or less is associated with increased achievement (e.g., Block, 1983; Schultz, 1989; Word, 1989), perhaps by making it more feasible for teachers to change instructional practices and provide more individual and small group assistance to students.

- several studies have concluded that more effective schools tend to have lower class sizes than less effective schools (e.g., Fetters, Collins, and Smith, 1968; Maryland State Department of Education, 1978; Edmonds and Fredericken, 1979; Mortimore, 1988). However, some other studies of unusually effective schools have not supported this conclusion (e.g. State of New York, 1974; Kean, 1979).

- class size may be particularly important with respect to effective schools goals involving improvement of low achievers' performance on higher order skills such as comprehension, critical thinking, and problem solving, because research indicates that such improvement requires careful *mediation* by a teacher or other instructional agent (Levine, 1988). This conclusion is compatible with those of several studies indicating that unusually effective schools have worked out arrangements for providing students with some assistance in learning individually (but usually not through comprehensive individualization) and in small groups (e.g., Austin, 1978; Duckett, 1980; Sizemore, Brossard, and Harrigan, 1983).

- as implied in the preceding discussion, class size *per se* may be less important than faculty efforts to provide appropriate assistance not just from classroom teachers but also from paraprofessionals, other teachers, peers, or other agents (Venezky and Winfield, 1979; Clark, Lotto, and McCarthy, 1980; Block, 1983; Canady and Hotchkiss,

1985; Canady, 1988, 1989). From this point of view, many unusually effective schools can be viewed as outstanding with respect to deployment and redeployment of staff and other human resources to raise achievement and accomplish other priority goals (Stedman, 1987). Class size normally is an important consideration in determining a school's capacity for doing this.

- the number of low achievers in a class may be even more important than overall class size, particularly as it affects teachers' decisions regarding pacing of instruction, their ability to respond appropriately and provide effective assistance to students, and overall behavioral dynamics in a classroom (Leinhardt and Pallay, 1982; Barr and Dreeben, 1983; Levine, 1985; Dreeben and Barr, 1988a, 1988b).

- class size, along with the number of low achievers and heterogeneity/homogeneity in grouping arrangements, interacts with other variables (e.g. teachers' skills, methodology, and experience, students' levels of performance) in affecting process outcomes such as whether and to what extent teacher centered direct instruction for the whole class or a large part of the class will be effective, whether small group and investigative learning methods will be productive, and whether many or most students will waste time in seatwork (Madden, Slavin, Karweit, and Livermore, 1989). For example, some unusually effective schools appear to have improved reading achievement in part through limiting the number of reading groups per class to two or three (Venezky and Winfield, 1979; Block, 1983; Sizemore, Brossard, and Harrigan, 1983; Levine and Eubanks, 1986-87), but the feasibility of this approach clearly depends on such considerations as overall class size, the number of low achievers, and the size and composition of the subgroups. (This approach is not necessarily best for every school, but it does have advantages in avoiding temptations to individualize without adequate materials or other resources, and in potentially alleviating other problems at schools with a high proportion of low achievers. Conversely, classes consisting mostly of high and average achievers may not suffer negative consequences from organizing multiple reading subgroups because students in this situation can work independently with relatively little teacher assistance.) Developing effective organizational arrangements involving grouping, class size, direct instruction, independent learning, and many other related considerations is a very difficult and complex undertaking, which may help explain why the principals of unusually effective schools apparently must be highly skilled in "sense-making" and "strategic dialogue" activities through which their "knowledge-in-action" can be refined and used to overcome a myriad of obstacles on a school-wide basis (Taylor, 1984; see the section in this monograph on "Outstanding Leadership").

c. ***In schools with significant numbers of low achievers, some degree of levelling probably will be required in attempting to provide effective instruction.*** We use the term "levelling" to refer to the practice of classifying students into a few broad groupings or levels based on current reading performance. For example, Sizemore and her colleagues (1983) concluded that unusually effective inner city schools in their study had been able to provide higher achievement partly through "differentiation of treatment for advanced, average, and slow learners with the provision of intense concept development instruction to increase growth rates" (Sizemore, 1985:272), South Boston High School registered large gains in reading after classifying ninth and tenth grade students as average or above average on the one hand or below average or nonreaders on the other, and providing comprehensive and intensive instruction in reading and writing for the latter grouping (Kozberg and Winegar, 1981; Levine and Eubanks, 1989), and an unusually effective intermediate school in inner city Los Angeles provided differential instruction after distinguishing between nonreaders, low readers, and average or above readers (Levine, Levine, and Eubanks, 1984). "Levelling" may be a more useful term than "homogenous grouping," because it implies an effort to avoid overuse of homogeneous grouping and tracking, along with an insistence on helping low achievers master skills needed to function successfully thereafter in more heterogeneous learning environments.

d. ***To the extent that some degree of levelling is used within classes or across a grade level, strong efforts must be made to avoid the potentially negative consequences of homogeneous arrangements.*** Frequently encountered in analysis of school functioning as well as formal research reviews, these negative consequences include low expectations for students in low performing groups, slow pacing of instruction, reinforcement of low achievers' negative self-concept, and magnification of negative classroom

dynamics. In this regard, Leinhardt and Pallay (1982) reviewed research on "restrictive" settings for low achievers, and concluded that potentially negative consequences can be minimized or avoided through: 1) small class size; 2) high overlap between teaching/learning activities and criterion tasks; 3) mastery learning systems emphasizing monitoring of progress; 4) increased time in cognitive activities; 5) reasonably rapid pacing; 6) a formal classroom management system; 7) positive teacher affect; 8) increased instructional time; and 9) an emphasis on positive student self-concepts.

2. Appropriate Pacing and Alignment.

Closely related to issues involving mastery of central skills and to grouping concerns discussed in preceding sections of this monograph, appropriate pacing of instruction has been identified as an important effective schools correlate in several studies of unusually successful schools. For example, analysis by McCormack-Larkin and Kritek (1982) of inner city schools in an effective schools project in Milwaukee indicated that the fastest improving schools exemplified "planning and monitoring for full content coverage" which also emphasized "use of the accelerated learning approach...[to attain] more than one year's growth" (17-18) for low achievers who otherwise would have little opportunity to achieve at the national average.

Support for the importance of pacing as a key variable in improving student achievement also has been provided in much classroom-level research such as the series of intensive first-grade studies conducted by Barr and Dreeben (1983; Dreeben and Barr, 1988a, 1988b). After analyzing reading gains in fifty reading subgroups within thirteen classes in seven schools, Barr and Dreeben reported that achievement in word-learning and reading strongly reflected amount of coverage of content combined with allocation of sufficient time and other indicators of opportunity to learn (Dreeben and Barr, 1988b). The authors point out that these considerations interact with numerous other important variables such as aptitude level and size of classes and reading subgroups, district and school policies regarding selection and use of instructional materials, and teachers' choice of instructional methods. These researchers also concluded that:

> ...the conventional belief that the weakest students benefit from the slowest instruction is probably false. Indeed, such students benefit most when instruction places more than minimal demands on them but also provides sufficient time to practice and consolidate (Dreeben and Barr, 1988b, 56-57).

In the case of low achieving students who are far below grade level in reading and other fundamental learning skills, the pace of instruction will have to be accelerated or low achievers will continue to lag far behind their peers and will be unable to function well in learning grade-level content (Levin, 1987). Ways in which instructional pacing has been accelerated at low achieving schools participating in effective schools projects include the following:

- development and use of an accelerated schedule for delivering instruction (McCormack-Larkin, 1985a).
- "spiralling" up approaches in which whole-class direct instruction is used to introduce material at students' current instructional level, but teachers quickly move beyond that level after providing appropriate help to pupils.
- "spiralling down" approaches in which whole-class direct instruction is used to introduce grade level material but action is taken to help non-masters acquire key entry skills required to function at this level.
- faculty identification of skills which do and do not deserve reduced emphasis (or additional emphasis) at each grade level (Neidermeyer and Yelon, 1981; Wick and Turnbaugh, 1983).
- emphasis on materials and objectives at grade level for whole-class instruction but at students' performance level in subsequent small group instruction (McCormack-Larkin, 1985b).
- prohibition of ditto sheets and workbooks that mire students in unproductive small skills assignments.
- drastic alignment of curriculum and instruction such that teachers receive only carefully selected portions of basal readers and therefore cannot proceed slowly through every page to make sure that every student has fully mastered every small skill (Levine and Eubanks, 1986-87).
- limitation of district and/or school scope-and-sequence guidelines and testing practices to a small number of essential skills that emphasize higher order learning rather than low-level, mechanical learning (Levine and Stark, 1981; Levine and Eubanks, 1983).

3. Active/Enriched Learning.

Several authors have reported that unusually effective schools tend to emphasize instructional approaches that encourage and support active and enriched learning by students in a context which involves considerable interaction with teachers and other students. For example: one of the schools described in a Phi Delta Kappa volume portraying successful urban schools used Teaching Reading Through Drama, Outdoor Education, and other active learning approaches (Gregory and Mueller, 1980); numerous schools are reporting large middle grades gains in reading and math scores after implementing the HOTS (i.e. Higher Order Thinking Skills) approach for using discussion and computers to help stimulate language and thinking skills among low achievers (Hodge, 1988; Pogrow, 1988); teachers at effective schools in Louisiana were observed using "interactive" instruction more frequently than teachers in less effective schools (Stringfield and Teddlie, 1988; Teddlie, Kirby, and Stringfield, 1989); one of the unusually effective inner city schools described by Levine and Stark (1981) spent much of its Chapter 1 funding to operate a TV production studio which facilitated development of students' language and communications skills; several of the schools in this same study implemented comprehensive arrangements to link classroom learning to use of library and media resource centers; a successful inner city school described by Levine, Levine, and Eubanks (1984) systematically emphasized "language bees" and other active learning techniques; Mortimore (1988) and his colleagues found that more effective teachers at elementary schools in London placed greater stress on "stimulating" higher order learning than did teachers in less effective schools; several of the successful elementary schools briefly described by Stedman (1987) and analyzed at length by other researchers utilized a host of academic enrichment activities and approaches; an unusually effective school described by Comer (1980, 1987, 1988) integrated language arts and social studies learning through student operation of a school store and in other ways; several of the unusually effective schools described by Brookover and his colleagues (1979) emphasized teaching "games" such as spelling bees and math competitions; numerous schools that have registered substantial large improvement gains have made extensive use of cooperative student learning techniques (Brookover, 1982; Miller, 1982; Slavin, 1988; Slavin and Madden, 1989); and unusually effective schools studied by Dorr-Bremme (1990) and his colleagues engaged students much more in active reading-related learning experiences than did less effective control schools.

That unusually effective schools apparently emphasize active, enriched learning is no surprise inasmuch as a great deal of research identifies overemphasis on small, mechanical skills associated with passive seatwork as a central consideration in generating and perpetuating low achievement (Cooper and Levine, 1988; Honig, 1988; Peterson, 1988; Cooper, 1989; Cooper and Sherk, 1989; Allington, 1990). Many studies have not cited active and enriched learning as an effective schools correlate, but this, too, is not surprising, because many or most studies have not included it as a variable, because emphasis on active learning cannot be expected to result in large achievement gains unless other effective schools correlates also are present, and because criteria for success often center on or at least include scores in language mechanics, math computation, or other low-level skills that can be bolstered somewhat through worksheets and other passive learning assignments.

Active and enriched learning approaches are difficult to implement effectively, particularly in schools with large proportions of low achievers who are not well prepared to learn independently. Successful implementation usually requires substantial increases in supplies and equipment, much technical assistance must be provided, teachers' loads frequently must be reduced, and staff must be willing to tolerate and be able to function in a relatively "messy" and complex working environment. From this point of view, it is easy to see why successful utilization of active, enriched learning in turn depends on other effective schools correlates such as skilled leadership, strong commitment on the part of teachers, unusually effective instructional arrangements for low achievers, and a problem solving orientation exemplified throughout the entire faculty.

We also should stress that emphasis on active and enriched learning does not necessarily conflict with other effective schools correlates cited elsewhere in this monograph or with other research that supports the utility of teacher-centered, whole-class instruction (i.e. "direct

instruction") as a strategy for improving achievement when used appropriately to teach key learning skills, build high expectations for student performance, expedite classroom management, and/or accelerate the pacing of instruction. Unless universally treated as mutually exclusive, active and direct instructional approaches do not represent opposite ends on a single bipolar continuum (Calfee, Henry, and Funderburg, 1988). On the other hand, it is true that active learning can be much more difficult and challenging for teachers to implement than is a monolithic direct instruction format (Karweit, 1988; Pinnell, 1988a), and that teachers must be sophisticated and talented if they are to interweave differing approaches effectively. Successful orchestration of a variety of approaches by a capable and dedicated faculty probably is another distinguishing characteristics of instructional programming and delivery at unusually effective schools.

4. Effective Teaching Practices.

Based on both logic and common sense, educators seem justified in assuming that teachers in effective schools are more likely to use effective teaching and classroom management practices than faculty in less effective schools. (For discussion of some of the connections between effective schools research and effective teaching practices, see Blum, 1984 and Davis and Thomas, 1989). Unfortunately, other than with respect to practices dealing with time-on-task, recognition for academic success, and other aspects of teaching already identified in preceding sections of this monograph, this conclusion is not well established by systematic research. Brookover (1979) and his colleagues reported that teachers in more effective schools were more likely to use "appropriate" reinforcement (e.g., not praising students for inadequate work) than were those in less effective schools, Teddlie and Virgillo (1988) found that teachers in unusually effective elementary and junior high schools ranked higher on classroom management than did teachers in less effective schools, and Teddlie, Kirby, and Stringfield (1989) found that more effective schools scored higher on measures involving "presentation of new material" and "positive reinforcement" than did less effective schools, but few other studies have provided support for those kinds of effective teaching variables.

Reasons why support for effective teaching practices is relatively weak in effective schools research involve the fact that such practices are difficult to assess and the perplexing difficulties which researchers have encountered in trying to reach generalizable conclusions regarding optimal use of reinforcement, lesson sequencing, "wait time" after questions, teacher-student interaction guidelines, and other teaching techniques (Wittrock, 1986; Gage and Needels, 1989). In addition, the widespread tendency for school officials to substitute limited staff development focusing on effective teaching for the comprehensive interventions required to substantially improve school effectiveness sometimes results in a pattern wherein many ineffective schools score relatively high on effective teaching measures, thereby muddling comparison with more effective schools. In many cases, such approaches are likely to be counterproductive in that they divert attention from other interventions, and when carried out under the banner of the effective schools movement or education reform in general, they may function to ultimately discredit not just the potentially valuable set of teaching and classroom management techniques they are intended to develop but the idea of reform itself. Introduction and development of effective teaching practices should be part of effective schools projects, but only as one component in an effort to address the larger set of correlates discussed in this monograph.

5. Emphasis on Higher Order Learning in Assessing Instructional Outcomes.

Closely related to imperatives cited above regarding pacing and alignment of instruction, provision of active/enriched learning, and grouping arrangements to counteract emphasis on low-level learning, assessment in unusually effective schools has utilized tests and other measures that focus on comprehension and other non-mechanical skills. Despite the fact that most widely used and available standardized and criterion-referenced tests provide educators with very little help in assessing students' performance with respect to higher order skills (Guthrie, 1987; Romberg, 1988; Peterson, 1988; Baron, 1989; Neill and Medina, 1989; Porter, 1989; Resnick and Klopfer, 1989), faculties in many of these schools have found ways to collect and utilize data focussing on comprehension and other higher order learning, or at the least have resisted testing practices that drive instruction toward overemphasis on

low-level skills. (However, because so much effective schools research has defined effectiveness largely or entirely in terms of low-level learning, the literature dealing with productive assessment of higher order skills as a correlate of unusual effectiveness is relatively thin). Examples of assessment approaches and practices that appear to have played an important part in improving achievement at such schools include the following:

- New Orleans elementary schools which have registered achievement gains using the Degrees of Reading Power Test (which emphasizes students' ability to read with understanding) as part of an effective schools project stressing instructional leadership, parent involvement, and other correlates (Southern Coalition for Educational Equity, 1986).

- Glendale (Arizona) high schools at which testing and reporting policies give greater weight to skills classified as high on Bloom's taxonomy (Becker and Barry, 1989).

- Spencerport (NY) schools which emphasize the taxonomy in developing local criterion-referenced tests (Sudlow, 1989).

- primarily middle class elementary schools at which functional reading performance is assessed by classroom teachers who then concentrate on providing materials at suitable levels of difficulty rather than on teaching reading subskills (Wick and Turnbaugh, 1983).

- Kansas City (Missouri) inner city elementary schools in an effective schools project which places special emphasis on ITBS comprehension scores in planning instructional improvement (Groom, 1989). (Language mechanics scores in many of these schools already had reached or exceeded the national average.)

- inner city schools in New York City District #9, in which large gains in reading comprehension have been registered utilizing Degrees of Reading Power scores as one part of a much larger, comprehensive effort to address many of the instructional issues discussed in this monograph (Menahem and Weisman, 1985).

- an unusually effective inner city school at which faculty refused to trivialize instruction in order to meet central office demands for increase in scores on low-level skills testing (Levine and Stark, 1981; Levine and Eubanks, 1983). This refusal to bow to the demand for meaningless statistics designed to help central decisionmakers demonstrate so-called "accountability" resembles a situation in which staff at a police precinct refused to divert themselves from productive efforts in order to compile purely bureaucratic improvements in number of calls answered and average response time (Wilson and Kelling, 1989).

What generates faculty insistence on or least willingness to assess instructional outcomes in terms of comprehension and other higher order skills, even though improving student achievement on such measures is likely to be much more difficult and energy consuming than raising scores on low-level tests? We do not know of research that has addressed this question explicitly and systematically, but clearly an adequate answer will involve other effectiveness correlates such as instructional leadership from the central office, the principal, and others, belief that low achievers can engage in meaningful learning and must be helped to do so, liberal provision of technical assistance and staff development time focussing on assessment possibilities and relationships between instruction and testing, skill in identifying and overcoming obstacles that impede higher-level learning, and commitment to a shared vision concerning improvement of central learning objectives.

6. Coordination in Curriculum and Instruction.

Identified as a variable distinguishing between more and less effective elementary schools in several studies, coordination in curriculum and instruction in these studies has been defined in terms of: "content, sequence, and use of material throughout all grades . . . [as contrasted with each teacher planning] an instructional program for his or her own class" (Wellisch, MacQueen, Carriere, and Duck, 1978:217); sharing of "information pertaining to reading materials and student progress . . . between grades, within grades, between the school and community, [and] with specialists and aides" (Stoll, 1978-79:3); "consistency" in the "continual development of competencies" across grades and in "the approaches used to teach these skills" (Venezky and Winfield, 1979:31); a "high degree of articulation, particularly in reading and mathematics" (Austin, 1981:44); implementation of "grade level expectations . . . [defined in terms of] prerequisite for success at the next grade" together with "coordination of supportive services" (McCormack-Larkin and Kritek, 1982:17-18; McCormack-Larkin, 1985b); use of "sup-

plementary services to directly" reinforce classroom instruction along with emphasis on "specific instructional approaches" developed through site-level staff development (Jackson, 1982:94); and "consistency among teachers" in using district or school guidelines for subject matter (Mortimore, 1988:224,250). Several of these studies which dealt entirely or primarily with low SES schools placed special emphasis on coordination between regular instruction and special services such as Chapter 1, in line with evidence we cite elsewhere in this monograph indicating that reduction or elimination of compensatory pullout problems is a correlate of unusual effectiveness. Coordination of instruction at these unusually effective schools also is clearly interrelated with other correlates such as administrative instructional leadership, practice-oriented staff development, and clarity in school mission and goals.

7. Easy Availability of Abundant, Appropriate Instructional Materials.

Levine and Stark (1981) were struck by the strenuous efforts which administrators and teachers at several unusually effective inner city schools had made to ensure that an abundance of suitable materials was easily available for use in delivering instruction. Somewhat similarly, Venezkey and Winfield (1979) remarked on the great lengths to which administrators at such schools went to provide a surfeit of appropriate instructional materials, Wilder's (1977) portrayal of exemplary compensatory reading programs stressed their provision of appreciable "alternative" materials, Stoll (1979) found that teachers in more effective schools in Florida were more satisfied with the "amount and variety of materials" than were teachers at less effective schools, Armor (1976) and his colleagues found that effective inner city schools ranked higher on "variety of materials" which teachers were trained to use than did their less effective counterparts, and Glickman and Pajak's (1988) study of Georgia districts and schools which had improved in achievement cited provision of abundant teaching resources keyed to central learning objectives as an important consideration in bringing about gains. Effective schools' stress on availability of materials is consistent with evidence cited elsewhere in this monograph indicating that principals of these schools stress acquisition of resources and provide unusual support for their teachers, faculty emphasize active/engaged learning (which usually requires a multitude of materials) and responsiveness to students' individual learning needs (Clark, Lotto, and McCarthy, 1980; Stedman, 1987), and instructional arrangements in general are designed to help low achievers attain high standards as expected and required by their teachers.

8. Classroom Adaptation.

Several studies of unusually effective elementary schools have concluded that teachers in these schools tend to adapt curriculum materials and instructional methods for use in their respective classrooms, as contrasted with mechanical implementation following highly prescribed steps and sequences. Thus, Sizemore, Brossard, and Harrigan's (1983) in-depth study of two such schools in Pittsburgh concluded that teachers were active in adapting basal readers and sequencing tests, Armor and his colleagues found that encouragement for teachers to "adapt or modify the reading program on an individual classroom basis...[rather than conforming] closely to...program guidelines" (Armor, 1976:28) strongly differentiated between more and less effective schools, Fetters and his colleagues reported that teachers in more effective schools were significantly less likely to say they had "too little freedom" in matters involving curriculum than did teachers in less effective schools (Fetters, Collins, and Smith, 1968:21), and Jackson concluded that teachers in less effective schools in her study seemed "to be controlled by the mechanics in the management aspects" of their instructional system as contrasted with more effective schools where the "driving force" involved student needs (Jackson, 1982:151). However, it is important to note that the effective schools in these studies also exemplified strong administrative leadership and/or considerable teacher interaction in setting instructional directions, so that adaptation occurred in the context of a clear and consistent instructional mission.

Evidence indicating that classroom adaptation of instruction is a characteristic of unusually effective schools is not surprising inasmuch as reams of recent research and analysis stress the importance of teachers' sophisticated

expertise and decisionmaking in delivery of effective instruction (e.g., Berliner, 1986; Shannon, 1988). Conversely, mindless and mechanical implementation of packaged curriculum materials does not bring about lasting gains in student achievement. Were school improvement this easy, school officials would have registered more success through simple mandating of selected materials and procedures, and would not have to attend to classroom adaptation and other correlates of effective schools.

9. Stealing Time for Reading, Language, and Math.

Schools with a high proportion of low achievers face an extremely difficult task in striving to ensure that students can function with sufficient understanding and independence to handle curriculum content on or near grade level. Without the capacity to read with understanding and handle fundamental mathematics concepts, low achievers will not be able to function productively in practice assignments and seatwork unless they receive more individual and small group assistance than reasonably can be provided by most teachers at low achieving schools. Accordingly, faculties at such schools have had to find ways to greatly upgrade student performance in reading, language, and math.

In many cases, such gains have been registered largely through increasing time allocated to reading and to application in language (e.g., greater use of libraries) and mathematics. (Our use of the term "application" excludes emphasis on low-level mechanics in language and math.) In turn, this frequently has necessitated reductions in time for social studies, science, art, music, and/or other subjects (Sizemore, Brossard, and Harrigan, 1983; Nagel, 1986). Movement in this direction is not as easy as it sounds, because parents of students at low achieving schools may view such an approach as inequitable or discriminatory, state or district tests may include components in social studies, science, or other subjects in which student performance may well decline, teachers may be reluctant or unwilling to "give up" favorite topics dealing with U.S. history, art, or other subjects, and critics may point out that social studies, science, and other subjects provide opportunities to improve learning through application of reading and math skills. In the face of these and other criticisms and obstacles, success in improving reading and math through increased time allocations will depend on considerations such as a unified faculty mission, good communications with the community and/or willingness to withstand parental criticism, leadership of the principal in motivating or replacing recalcitrant teachers, acquisition of additional, appropriate reading and math materials, and disregard of state or district pressures to raise or maintain average scores in all testing categories—in other words, other correlates of effectiveness.

Confronted with many obstacles, faculty at low achieving schools can take a variety of steps to enhance the likelihood that they will succeed through increased allocation of time for reading, language, and math. Among the approaches which appear to have had some success are the following:

- reducing time devoted to industrial arts at inner city intermediate schools (Levine, Levine, and Eubanks, 1984).
- "integrating" or otherwise coordinating learning experiences and assignments dealing with English, reading, language development, and social studies (Wilder, 1977; Comer, 1980).
- replacing social studies books with materials such as the Chicago Mastery Learning Reading series (now called "Insights") which are designed to enhance comprehension skills but retain appreciable social studies content.
- utilization of television studios, math problem solving labs, and other facilities designed to facilitate active learning in content subjects (see our discussion on active/enriched learning).
- utilizing art, music, and/or physical education teachers for efficient large group (i.e. multi-class) instruction (Levine and Stark, 1981; Glickman and Pajak, 1986).

Of course, it is highly desirable and ultimately imperative that students in low achieving schools not only receive a broad range of learning opportunities in science, humanities, and other subjects, but perform at comparable levels as do students at less disadvantaged schools. Stealing time from science, social studies, or other subjects should be done only to improve students' preparation to function productively in such studies as soon as possible. One major question faculties must wrestle with in determining how to attain this long-range goal involves a choice between moving incrementally through increased allocation

of time for reading, language, and math, or instead, to radically improve planning and delivery of coordinated instruction in all subjects in order to enhance students' functional skills without sacrificing any content. Levine, Levine, and Eubanks (1985) view this choice as delineating a difference between "incremental improvement", which they perceive to be a relatively feasible goal that most inner city schools can attain relatively quickly, and "fundamental reform", which they believe to be an extremely difficult and expensive task that many schools may not be able to accomplish within four or five years.

H. HIGH OPERATIONALIZED EXPECTATIONS AND REQUIREMENTS FOR STUDENTS

The presence of high expectations for acceptable student performance and behaviors, along with requirements and other polices that help communicate and effectuate such expectations, has been cited as a crucial characteristic of virtually all unusually effective schools described in case studies (e.g., Weber 1971; Armor, 1976; Hoover, 1978; Brookover and Lezotte, 1979; Venezky and Winfield, 1979; Lezotte, 1980; Levine and Stark, 1981; Jackson, Logsdon, and Taylor, 1983; Sizemore, Brossard, and Harrigan, 1983; Taylor, 1984; Stringfield, Teddlie, and Suarez, 1986; Crawford and Kimball, 1988; Steller, 1988; Teddlie and Stringfield, 1989). In addition, high expectations sometimes has been identified as a correlate of effectiveness in multiple regression studies (e.g., Weiss, 1984; Bamburg and Andrews, 1987), even though multivariate analyses usually use questionnaires on which respondents generally are reluctant to describe themselves or their school as less than highly expectant.

Development of high expectations and requirements for students is closely related to other effective schools correlates. For example, monitoring of student progress is emphasized in the unusually effective school not just to obtain diagnostic data but also to help communicate high expectations and a strong academic press, discipline is firm in part because a disruptive climate otherwise will render high expectations unrealistic (Hoover, 1978), and outstanding leadership is a key element in developing and maintaining rigorous expectations and requirements. On this latter point, Murphy's summary of research on instructional leadership portrayed effective leaders as translating high expectations into school policies and practices through a variety of behaviors:

> . . . they place more instructional demands on teachers; they communicate their concern for and interest in student achievement; they establish clearly defined schoolwide academic standards; they develop standards that apply to *all* students; they hold more specific expectations than their less effective peers; they create policies that encourage students to pursue more rigorous academic goals; they hold adults responsible for learning outcomes; they couple success with performance; and they require student mastery of grade level skills prior to entry in the following grade (Murphy, 1989).

The urgency and gravity with which faculty at unusually effective schools approach issues involving expectations held for students have been aptly captured by Stringfield, Teddlie, and Suarez (1986) in a case study of third grades in a more and a less effective middle class elementary school in Louisiana. After an extensive data collection effort including both low-and high-inference observations, the authors concluded that both schools:

> . . . had highly stable staffs, strong parental involvement, and a sense of community. Discipline was not a major problem at either school. Both schools had focussed major staff development efforts . . . [and received] equal district support. Both had high expectations . . . [but] at Fillmore these tended to take the form of a belief that the students will go to college, whereas at Adams it was expressed as a conviction that *all* students can, and *will*, learn their third grade materials *this* year, starting *now* . . . [These differential expectations] had been translated into in-class action. The rate of interactive instructing at Adams nearly doubled that at Fillmore. Similarly, time spent in organizing and off-task activities was a third lower at Adams (Stringfield, Teddlie, and Suarez, 1986:36, orig. ital.; time in organizing off-task activities in turn was negatively correlated with achievement differences between the two schools).

In a recent summary of an important large-scale, longitudinal study of more and less effective Chapter 1 elementary schools, Dorr-Bremme (1990) concluded that differences in expectations and related variables associated with their differential effectiveness fundamentally reflected underlying differences in cultural perspectives and beliefs that guided the behaviors of their faculties. Stated differently, educators in the two groups of schools had "different cultures" in the sense that they "know" differing "facts" to be "real and true about their local,

workday world," and they use "this knowledge for making sense of what was going on in particular situations that they routinely encountered and for deciding how it was 'right' to act in those situations" (Dorr-Bremme, 1990). (This use of the term "culture" differs in important respects from its definition in studies and analysis cited elsewhere in this monograph.) Based on thousands of observations and interactions as well as various data on classrooms and other aspects of school functioning at the more and less effective schools, Dorr-Bremme and his colleagues concluded that these differing cultural perspectives associated with differential expectations also translated into a greater emphasis on "reading-for-understanding," interactive learning, and written composition at the more effective schools. Overall, the "perceived reality" of faculty at the two groups of schools started from an identical set of beliefs described by Dorr-Bremme as follows:

1. Ours are students who experience difficult economic and social circumstances in their lives outside school.
2. Ours are students who, as a result of these circumstances, come to school lacking certain skills and information that other students, from more economically well-to-do families, routinely have when they begin schooling.

Despite this initial agreement in perceptions, teachers at the more and less effective schools substantially differed as follows in their subsequent interpretation of the meaning and implications of their students' disadvantaged backgrounds:

Less Effective Group	More Effective Group
3. In view of all this, ours are students who have difficulty learning.	3. Despite all this, our students are competent learners, even if teaching them requires special skill and effort.
4. We are educators who work hard to take our students' needs into account. This means considering their total life situations and not expecting more of them than they can do.	4. We are people who take our students' needs into account as we teach. This means that we challenge our students, make them work hard and do the very best that they can.
5. This also means that we must work hard to remediate their basic skills. Decoding is the basics of reading; our students lack elementary decoding skills, so we must begin there.	5. Challenging our students also means moving them into reading-for-understanding as soon as possible. One should not defer reading comprehension until students learn all their phonics decoding skills, and to do so with students who enter school behind would only keep them behind.

The differing mind-sets of faculties at the more and less effective schools translated into differing requirements for students. As described by Dorr-Bremme, teachers in the more effective schools were more likely to hold students "strictly accountable" for their performance, for example by "keeping them in at recess" when their homework was not completed and by demanding that fatigued students pay attention, whereas teachers in the less effective schools tended to excuse student lapses on the grounds that they experienced problems in their homes and communities. (Similar comments differentiating teachers in more and less effective schools are reported in Jackson's 1982 study.) And as summarized in the differing world views cited above, teachers in the more effective schools further operationalized high expectations by insisting that their pupils must learn to read with understanding and generally engage in active and enriching learning experiences. By way of contrast, teachers in the less effective schools stressed mechanical decoding skills taught in large measure through "worksheets and dittos." Dorr-Bremme further noted that differing teaching practices in the two sets of schools were not related in a simple one-way fashion to their different belief systems; instead, instructional approaches (which are influenced by many forces such as policy set by the principal or the district) also help shape teachers' beliefs, explanations, and expectations regarding student performance.

Several additional points should be stressed regarding the operationalization of high expectations and rigorous requirements for students. First, setting high instructional expectations and requirements generally involves hard and difficult work on the part of teachers. For example, teachers who as described by Dorr-Bremme minimized workbooks and ditto sheets in effect gave up a relatively easy way to keep students occupied and out of trouble, and probably even encountered some opposition from those students who prefer mechanical assignments that require little thought or effort and may enhance their feelings of success (Doyle, 1983). Similarly, maintaining strong discipline and rigorous behavioral requirements requires constant vigilance and extra effort by the entire faculty in many schools, particularly at inner city secondary schools (Payne, 1984). Trying to maintain high expectations primarily through exhortation without providing relevant support and guidance for students is like trying to steer a car with its horn.

Second, the specific methods used to operationalize high expectations and requirements may be less important than the fact that *something* is being done systematically and vigorously to communicate and ensure a strong academic press and a climate conducive to learning. For example, strong homework policies which have been utilized at many unusually effective schools (e.g., Fetters, Collins, and Smith, 1968; Levine and Stark, 1981; Anderson, 1982; McCormack-Larkin and Kritek, 1982; Dorr-Bremme, 1990) and the departures from social promotion which also are found frequently at such schools (e.g., McCormack-Larkin and Kritek, 1982; Eubanks and Levine, 1983; Glickman and Pajak, 1986) may sometimes be less valuable for their direct impact on student behavior and performance than for their indirect transmittal of high expectations and their positive effect on school climate.

I. NOTES ON OTHER POSSIBLE CORRELATES

There are many other school characteristics that may be correlates of unusual effectiveness but have not generally been assessed or considered in relevant research, even in the case of inner city elementary schools which comprise the largest subgroups of schools that have been identified and analyzed in effective schools studies. Several such possible correlates are discussed briefly in the following pages.

1. Student Sense of Efficacy or Futility.

Student sense of efficacy (i.e. students' "feeling that they have control or mastery of their academic work") distinguished between more and less effective schools in studies conducted by Brookover and his colleagues (Brookover and Schneider, 1975; Brookover, 1979:143) and by Stringfield and Teddlie (1987, 1988) and their colleagues. Assessment of sense of efficacy and the converse perception that working hard in school is futile used items asking students whether effort or luck controlled their future and whether teachers and other students expected and pushed them to succeed.

Student sense of efficacy is difficult to assess validly either on questionnaires or in case studies using observation and interview methods, and data measuring this variable with questionnaires typically are so highly correlated with SES and with scores on high expectations that they are unlikely to add independently in predicting unusual effectiveness. Nevertheless, researchers and practitioners engaged in effective schools research or improvement projects probably should give explicit attention to student sense of efficacy because of its obvious potential importance as a determinant of achievement, particularly at inner city secondary schools where negative peer attitudes and pressures are known to reinforce feelings of powerlessness (Fordham, 1988). On the other hand, improvements in students' sense of efficacy probably are most reliably and meaningfully attained through improved instruction that enhances students' achievement and experience of success in school; from this point of view, sense of efficacy might be treated more appropriately as an output criterion rather than a consideration on which faculty should focus separately in developing plans for improving their schools.

2. Multicultural Instruction and Sensitivity.

A recent review by Stedman (1987) of information on unusually effective schools with high proportions of low achievers concluded that most of these schools exemplified "ethnic and cultural pluralism" in the sense that their

faculties were committed to "breaking down institutional and community barriers to equality," emphasized the use of multi-ethnic materials and/or "displayed a great deal of sensitivity to linguistic minorities" (Stedman, 1987:219). Other unusually effective schools which appeared to emphasize these or other aspects of multicultural instruction are described in Comer (1980) and Sizemore, Brossard, and Harrigan (1983), while Bamburg and Andrews (1987) found that teachers in more effective schools ranked the goal of developing "strong multicultural understanding among students and staff" higher than did faculty at less effective schools. For a variety of reasons, multicultural aspects of curriculum and instruction constitute an important consideration in striving to improve the achievement of disadvantaged minority students (Gilbert and Gay, 1985; Conklin and Olson, 1988; Levine and Havighurst, 1989: Chapter 10). Both researchers and practitioners connected with effective schools projects should give more explicit attention to issues and possibilities involving multicultural sensitivity and instruction in the future.

3. Personal Development of Students.

James Comer (1980, 1987, 1988) described developments at two inner city schools in New Haven at which large achievement gains occurred after faculty devised approaches for dealing more systematically and explicitly with students' personal and social development. Interventions along this line included establishment of professional teams to help alienated students improve in behavior and academics, systematic attention to social skills in the curriculum, and staff development emphasizing improved classroom management and school discipline. Kozberg and Winegar (1981) and Levine, Levine, and Eubanks (1984), similarly, have described inner city secondary schools (i.e. intermediate and senior high schools) at which large achievement gains appear to have been associated with increased faculty attentiveness to students' personal development and problems, and the latter authors pointed out that such an emphasis theoretically is a defining characteristic of good intermediate schools in general. Among the many ways in which unusually effective inner city schools have endeavored to provide more support for alienated students are: employment of additional counselors; sponsorship of group counseling sessions; creation of positions such as dean of students; close cooperation with social service agencies; introduction of appropriate curriculum; redesign of elective courses; and improvements in contact with parents.

4. Rigorous and Equitable Student Promotions, Policies and Practices.

Several researchers have described unusually effective schools as having either initiated promotion and retention policies or implemented them more rigorously than was usual in their districts (Fetters, 1968; Wellisch, MacQueen, Carriere, and Duck, 1978; Levine and Stark, 1981; McCormack-Larkin and Kritek, 1982; Eubanks and Levine, 1983). Insistence on rigorous promotions policies appears to be emphasized in these schools as a way to transmit and help effectuate strong academic press and high expectations, and also as a mechanism for providing additional learning time and assistance so that very low achievers can function at or near grade level. It should be noted that most of the unusually effective schools for which rigorous promotions policies have been cited as an important characteristic are inner city schools with a high proportion of low achievers. Strong promotions policies and practices may well have different or negative effects in other types of schools.

We also must emphasize that promotions polices both raise and reflect a number of complicated issues. Retention in grade historically has not been very beneficial for students who were retained (Ascher, 1988). In addition, retention of significant numbers of students can produce spurious achievement gains which may reduce pressures to fundamentally improve instruction (Walker and Levine, 1988), and its primary purpose in many cases may be more punitive than reformist. If or when promotions and retention policies are considered for use as an improvement strategy in effective schools projects, instructional arrangements should ensure that appropriate help is provided for retained students, and alternative possibilities such as promotion with improved remedial assistance or transition classrooms that allow for flexible grade reassignments also should be considered (Ascher, 1988).

5. Student Responsibility for Learning.

Although the extent to which students accept and/or are given responsibility for learning has not been included explicitly as a variable in most effective schools studies,

several researchers have cited it as an important consideration at schools which either had gained greatly in effectiveness or were more effective than other schools comparable in SES (e.g., Mortimore, 1988). This finding is not surprising inasmuch as student responsibility for learning logically may well be an almost synonymous expression of some other correlates such as engagement in active/enriched learning and high expectations for students, and also is a central element in cooperative learning, metacognitive instructional strategies, and other teaching approaches which are well supported by research (Peterson, 1988; Jones and Idol, 1990) and receive much emphasis at many unusually effective schools. From this point of view, there may be little reason to specify student responsibility for learning as a separate correlate in effective schools research. On the other hand, it may be worthwhile to determine whether measurements of student responsibility have independent effects on achievement and how effective schools have endeavored to develop this correlate on a planned and systematic basis.

Footnotes:

[1] Examples described by Sizemore, Brossard, and Harrigan include: inviting parents to monitor teacher behavior; veto of teacher decisions involving students' progress and assignments; keeping students after school for punishment and/or reteaching; denial of student privileges; discouraging student referral to mentally retarded classes; feeding breakfast to ineligible students; short-circuiting the central office in contacting city agencies; and encouraging teacher transfers.

[2] The eight areas of research deal respectively with: school effects; change and innovation; program implementation; technical reports on 1980's reforms; effective schools leadership; effects on organizational outcomes; effective principals; and improving schools.

[3] Competence in sensemaking and initiating action based on it appear to depend on a number of interrelated subskills and talents. For example, Hackman and Walton (1986:108) have identified some of the important skills required for "competent action" in managing effective teams as follows: "envisioning" skill; "inventive" skill; "negotiation" skill; "decision-making" skill; "teaching" skill; "interpersonal" skill; and "implementation" skill.

V

CREATING EFFECTIVE SCHOOLS

BEFORE PROCEEDING TO DISCUSS considerations involved in successfully enhancing the effectiveness of groups of schools on a planned and systematic basis, we should acknowledge that prior to the 1980's most of the unusually effective schools we had encountered in person or seen described in the literature had been isolated institutions which attained this status basically on their own with little or no external assistance or participation in an effective schools "project." Thus our experiences largely coincide with that of Stringfield and Teddlie (1987), whose research on unusually effective schools in Louisiana led them to summarize the general "process of becoming a highly effective school" (1987:11) as follows:

> **Step 1.** An instructional leader or leadership group, ideally though not necessarily including the principal, emerges or, more often, arrives. This [person or group has]...a vision for what the school and its students could become...[that] involves higher levels of learning and a more generally 'humanistic' set of processes than current realities would seem to justify. Though they [the leaders] may not consciously know it in the beginning, they are prepared to work very long hours for years to achieve their vision...
>
> **Step 2.** [The principal chooses] new teachers and aides with great care...[looking] for 'spark' or 'energy'...[rather than] years of teaching experience or advanced degrees.
>
> **Step 3.** Either alone or with the aid of their staff the instructional leader(s) conduct an accurate instructional audit of the school...[This part of the process generally addresses the following set of questions]:
>
> a. Is the school a safe place for children and staff? If no, this becomes priority number 1. If yes, go to b.
> b. Is the school a healthy and orderly place? If no this becomes the top priority, else go to c.
> c. Is the school achieving 'the basics'?...If not, this becomes the next goal...[with the focus] here not on drudgery...
> d. What is the current status of our text book series and supplemental readers (within and across grades)? Our 'teaching' and homework? Curriculum and instruction?...
> e. Is the school providing additional, enriching, stimulating activities for its students...[and] involving the larger community in ways that are good for the students and for the community itself?
>
> **Step 4.** In areas where multiple resources are available, effective principals become increasingly active in targeting career development for some, occasionally all staff. This targeting is largely due to their frequent in-class observations.
>
> **Step 5.** The level of principal awareness of research on teacher effectiveness varied...from moderate to non-existent. But all exercised the common sense notion that hard work leads to success...Teachers who do not meet reasonable instructional standards are put on probation, provided assistance, then either exhibit improvement, transfer to another school/district, or are fired.
>
> **Step 6.** A uniform homework policy...[and] a minimum daily homework expectation [often are established].
>
> **Step 7.** Special programs such as Chapter 1 and Special Education are thoughtfully coordinated with the regular program (Stringfield and Teddlie, 1987:11-13).

CONVERSELY, many schools that have participated in effective schools projects or similar school improvement efforts have failed to register substantial and lasting gains in student achievement or other major indicators reflecting student performance. On the other hand, many other schools have improved substantially while participating in such efforts (McCormack-Larkin and Kritek, 1982; Clark and McCarthy, 1983; Eubanks and Levine, 1983;

Freeborne, 1984; Taylor, 1984; Gauthier, Pecheone, and Shoemaker, 1985; Lezotte and Bancroft, 1985a; Everson, Scolay, Fabert, and Garcia, 1986; Nagel, 1986; Achilles, 1987; Office of Elementary, Secondary and Continuing Education, 1987; Groom, 1989; Murphy and Waynant, 1989), and much has been and is being learned concerning considerations and issues that should be addressed in carrying out a multi-school project to enhance their effectiveness. The remainder of this section will review some of the most important guidelines we believe have emerged and several key issues that are still unresolved in formulating and carrying out systematic efforts to enhance the effectiveness of groups of schools participating in significant improvement projects.

1. ***Substantial staff development time must be provided for participating faculties, preferably at least in part during the regular teacher work day.*** In agreement with research indicating that teachers' acquisition and successful utilization of new or improved instructional approaches requires considerable time and practice extending to coaching and practice at the classroom level, staff development must be an integral and ongoing activity in projects to make schools more effective. The large magnitude of time required to provide teachers with significantly more effective methods for improving students' comprehension skills has been underlined by Kurth and Stromberg (1984), who worked with a small group of teachers to promote more independent reading in a suburban elementary school and found that success depended on "continuous, almost Herculean" staff development efforts (1984:2). School districts that have made progress in improving student achievement through effective schools projects have utilized such approaches for delivering staff development as the following:

- stipend budgets for in-service training after school, on Saturdays, and/or during the summer (Eubanks and Levine, 1987).
- establishment of a team or "cadre" of experienced substitute teachers to release all or part of a faculty for sustained staff development.
- extension of the teacher and administrator work year to allow more time for planning, and staff and organization development (Stevens, 1988).
- provision of a full-time staff developer and/or designation of an assistant principal with particular responsibility and time for staff development in reading and language arts (Saxl, Kaplan, Robinson, and Springer, 1989; Levine and Sherk, 1990).
- operation of a district in-service center which groups of teachers or even entire faculties can attend for one or more weeks at a time.
- reduction of teachers' duty periods to provide time for staff development and collaboration during the regular school day (Glickman and Pajak, 1986).
- creation of "early closing" days when the student day is shortened in order to provide staff development and related effective schools activities (Murphy and Waynant, 1989).
- "early dismissal" of students during the last week of school to provide more time for staff and organizational development (Carter, Madison, Hall, and Lockamy, 1989).
- provision of a full-time "reading resource" specialist to work with a high school faculty released from planning and/or duty periods through assignment of substitute teachers (Monahan, 1988; Levine and Sherk, 1990).

2. ***Faculties engaged in effective schools projects must not wait very long before beginning to address issues involving improvement of instruction.*** As discussed elsewhere in this monograph, faculties should place some stress on general climate, academic press, orderly environment, and related effectiveness correlates that almost always need some attention and sometimes should be treated as the highest priority on which other improvements are dependent. Unfortunately, some faculties participating in effective schools projects tend to become fixated on climate, parent involvement, or other correlates which do not directly involve instruction (Pecheone and Shoemaker, 1984; Lezotte and Bancroft, 1985b; Arbuckle, 1986; Azumi, 1987; Lezotte and Taylor, 1989; School Effectiveness Unit, 1989; Green, undated), perhaps in part because instructional issues are more difficult to address, involve fundamental intra-faculty differences in philosophy and values, and/or tend to require more resources than do climate improvements (Pecheone and Shoemaker, 1984). In addition, substantial change in instruction frequently requires departures from district or state policies and

regulations. As we have tried to make clear throughout this monograph, school effectiveness seems to depend on a mixture of key characteristics that involve instructional arrangements, active learning, and other related variables, not just a positive climate, appropriate monitoring of student progress, or other isolated aspects of schooling. In particular, school improvement plans should pay particular attention to grouping, higher order skills, compensatory services, pacing, and other key aspects of instruction (Levine and Leibert, 1987).

Related to this guideline, Benore (1989) has reviewed developments in a 28 district effective schools project in Michigan and provided the following advice concerning the importance of addressing instruction in the earliest stages:

> Beware of the tendency for teams to focus on "doing something about the correlates' without ever paying attention to student outcomes. The correlates are only a vehicle toward. . . improved student performance. . . to avoid having correlate improvement become the major goal, gather and analyze the student outcomes data prior to administering the correlate assessment. State all improvement goals in terms of student performance indicators.

3. ***Conversely, faculties embarking in an effective schools project must avoid getting bogged down in elaborate schemes to train all staff in the details of a particular instructional technique or approach at the beginning of the project.*** This guideline is of great importance for three reasons. First, significant attention must be given to the larger effective schools framework and set of correlates during the critical first stages of a project. Second, intensive training in a new instructional approach frequently will preoccupy the faculty and drain their mental and physical energy. Third, imposition of a particular instructional approach such as a specific lesson delivery sequence or cooperative student learning early in a project frequently results in mindless implementation that tends to discredit the concept of instructional reform. Thus considerable time and effort during the first year should be devoted to general awareness and to key effective schools correlates involving expectations and requirements for students, grouping arrangements, alignment of curriculum, instruction, and testing, availability of adequate instructional materials, and other prerequisites for success in implementing instructional techniques. Benore (1989) has captured some of this guideline in deriving the following lessons from a multi-district effective schools project in Michigan:

> Though effective-teaching training models are important in building instructional leadership skills, start the program with a framework of Effective Schools Research. After the SI [School Improvement] team has written the improvement plan, effective-instruction training can be added as a strategy within the plan. Attempting to introduce Effective Schools and effective-teaching research simultaneously proved confusing and too overwhelming for most participants in earlier projects.

4. ***Improvement goals must be sharply focussed to avoid teacher and school overload.*** One of the most common reasons why effective schools projects fail is because they try to do too much in too short a time (Lezotte and Bancroft, 1985b; Henderson and Lezotte, 1988). This is particularly the case when staff development, curriculum development, and other resources are limited (as they almost always are), but the overload problem is present even when resources are substantial, and in some cases resources contribute to the problem by encouraging school officials to try too much at one time. Similarly, there is reason to believe that many inner city schools are hampered by the presence of too many compensatory programs to carry out effectively (Green, undated).

One common example of counterproductive overload involves school improvement projects in which faculties of inner city elementary schools are expected to improve instruction in reading, language arts, math, science, and social studies, all in one year (Levine, 1985). Overload of faculties participating in effective schools projects is but one small subset of a widespread national and perhaps international tendency to expect teachers to improve all aspects of instruction within a very short period of time. Thus success in an effective schools project sometimes may depend on bringing about an "organized abandonment" of numerous existing activities which are fragmented and incoherent.

5. ***Significant technical assistance must be made available to faculties participating in effective schools projects.*** Primarily in the form of specialized personnel, assistance is critically important in helping faculties assess their current levels of effectiveness and problems, develop the capacity to work together productively, and initiate and carry out significant changes in educational programming and delivery. Depending on the nature, scope, history, stage, and origins of a given effective schools project,

technical assistance may involve state department of education or central office specialists, other external consultants, and/or school staff or organizational development personnel (for examples, see Pajak and Glickman, 1989).

For example, Freeborne (1984), Pecheone and Shoemaker (1984), Arbuckle (1986), Shoemaker (1986), and Kelly (1989) have described substantial specialized assistance made available by the Connecticut, Maine and New York State Departments of Education; Clark and McCarthy (1983), Eubanks and Levine (1983), and Kelley and Willner (1988) described arrangements for technical assistance in New York City projects which sometimes required a facilitator in each school for the equivalent of one day a week or more; Groom (1989) portrays a successful big city project in which three full-time effective schools staff and other external resources as well as a full-time instructional specialist at each school are available to eighteen elementary schools; Kopple's (1985) assessment of school improvement efforts in Philadelphia concluded that a facilitator must be present in the school at least one day a week for several years; and Murphy and Waynant (1989) describe somewhat similar arrangements for a project involving the predominantly black elementary schools in a large suburban district. As in the case of staff development time and overload considerations discussed above, requirements for substantial specialized assistance to carry out effective schools projects mirror requirements that are necessary for the success of any successful significant school improvement project (Cox, French, and Loucks-Horsley, 1987; Richardson-Koehler, 1987).

Part of the reason why technical assistance and large amounts of staff development time are essential is because true school effectiveness is increasingly defined in terms of improvement in students' comprehension and other higher order skills (Anderson, 1985; Herber and Nelson-Herber, 1988; Honig, 1988; Peterson, 1988; Cooper and Sherk, 1989; Pressley, 1989). On the one hand, recently developed instructional methods for improving comprehension have been sufficiently widespread and impressive to constitute a virtual "revolution" in educators' capacity for attaining this goal (Pearson, 1985). On the other hand, there is "essentially nothing in instructional materials or in teacher training [until very recently] that helps the teacher learn what to do when the child does not understand" (MacGinite and MacGinite, 1986:258). One result of this discrepancy is that teachers in most faculties will require large-scale assistance of various kinds in order to enhance the effectiveness of their instruction.

6. ***Effective schools projects should be "data-driven" in the sense that appropriate information should be collected and utilized to guide participants in preparing and carrying out plans for improvement.*** As we pointed out in our preceding section dealing with "Achievement Criteria of Effectiveness," faculty attention in effective schools projects should include a focus on discrepancies between advantaged and disadvantaged students in acquiring key learning skills, particularly those involving higher order learning. School-level analysis of such data not only provides a basis for designing pertinent improvement efforts, but, equally important, calls attention to the educational outcomes to which school and district personnel attribute priority importance (Lezotte and Bancroft, 1985a). Instruments that can be most useful in this regard are discussed elsewhere in this monograph. Examples of effective schools projects in which appropriate data played a central part in shaping effective implementation have been provided in Murphy and Waynant's (1989) description of a large suburban project; Benore's (1989) analysis of a multi-district project in Michigan; portrayals by the Southern Coalition for Educational Equity (1986) and by Groom (1989) of big city projects; Everson, Scollay, Fabert, and Garcia's (1986) description of a small suburban project; descriptions by Gauthier (1982), Shoemaker (1982, 1984), and their colleagues working at the state level in Connecticut, and Azumi's (1987) description of an elementary school project in Newark. The importance of data in implementing effective schools projects has been highlighted by Thomas Kelly (undated) of the Suffolk III BOCES Metro Effective Schools Consortium in New York as follows:

> Clear data make it possible for a diverse group of individuals to come to consensus. Schools are inherently complex organizations. Each staff is made up of individuals with different personal histories and backgrounds, values and beliefs. Progress occurs when everyone pulls in the same direction. Real positive and lasting change in an organization comes about on the basis of commitment, not authority. Clear data can enable a school to get such commitment to needed change. It can lead to consensus (Kelly, undated:1).

7. ***Effective schools projects must avoid reliance on bureaucratic implementation stressing forms and checklists as well as mandated components rigidly applied in participating schools and classrooms.*** Among the best established findings of research dealing with significant school improvement efforts are the conclusions that: scope must be allowed for adapting a proposed change in curriculum or instruction in the context of participating schools and classrooms; assistance should be provided through the efforts of informed individuals as contrasted with bureaucratic checklists and regulations; and identification and resolution of practical problems in implementation depend on participants' personal knowledge and understanding of complex realities more than impersonal control mechanisms that are convenient for high-level decision makers (e.g., Spence, Takei, and Sim, 1978; Fullan, 1982; Cox, French, and Loucks-Horsley, 1987; Henshaw, Wilson, and Morefield, 1987; Wimpelberg, 1987b; Guba and Lincoln, 1989). "Technoholic" approaches (Vaill, 1989) that attempt to impose improvement through comprehensive, linear programming and supervision are no more likely to work well in schools than in other types of organizations. Effective schools projects are no exception. Research on the correlates of effectiveness has identified program components to receive attention in preparing a potentially successful improvement plan, but has not produced a list of characteristics that can be improved mainly through supervisors' rating them as adequate or inadequate on an evaluation form (Lezotte, 1982a).

8. ***Effective schools projects should seek out and consider using materials, methods, and approaches that have been successful in schools and projects elsewhere.*** Improving school effectiveness is a difficult undertaking which faculties of a participating school or project cannot be expected to reinvent successfully entirely on their own initiative (Lezotte and Bancroft, 1985b; Lezotte and Taylor, 1989). As noted above, approaches developed elsewhere seldom if ever can be transported successfully without considerable adaptation, and "packaged" approaches for initiating change or improving instruction are dangerous from the point of view that they frequently are introduced as a substitute for the hard work and often considerable resources required to bring about significant improvement. Nevertheless, prospects for success in effective schools projects are greatly enhanced when participants judiciously consider and adapt appropriate approaches developed and successfully implemented in other locations (Lezotte and Bancroft, 1985b; Heim, Flowers, and Anderson, 1989). In the terminology used by Peters (1988), "creative swiping" should replace the "not invented here" syndrome.

Examples of approaches which should be considered for many or most projects include the following: use of TESA training early in a project to sensitize teachers and help develop their skills in reaching low achievers (Brookover, 1982; Olson, 1986; Sudlow, 1989); "effective teaching" approaches for systematizing the lesson delivery of teachers who may be weak in this area (Brookover, 1982; Sudlow, 1989); curriculum materials designed specifically to develop students' comprehension skills (Levine and Stark, 1982; Williams, 1987; Levine, 1988); approaches for involving parents and other community representatives (Comer, 1980, 1988; Henderson, Marburger, and Ooms, 1985; Murphy and Waynant, 1989; O'Neill and Shoemaker, 1989); instruments, such as the Degrees of Reading Power test, which are designed to help in planning and delivering instruction focussed on improvement in students' comprehension (Southern Coalition for Educational Equity, 1986; Levine, 1988; Levine and Sherk, 1990); assertive discipline or similar approaches (Sudlow, 1989); primary grades programs in San Diego and Los Angeles to develop language readiness among disadvantaged students (Stevens, 1988); and student-team learning arrangements that help engage students more actively in learning (Brookover, 1982, Slavin, 1987; Noddings, 1989; Slavin and Madden, 1989; Taylor, 1989). Additional approaches which have shown considerable utility when adapted in local projects are described in various chapters in a 1989 manuscript edited by Lezotte and Taylor.

We also should note that travel to other schools and districts is, in our experience, particularly valuable. Travel constitutes one of the most effective ways to encourage consideration of promising practices developed elsewhere and for allowing participants to make informed decisions concerning applicability to their own situation. Providing opportunities to visit other schools and districts has been critically important in helping participants in some effective schools projects develop readiness and capability

for introducing significant improvements in their own schools (Lezotte and Taylor, 1989).

9. ***The success of an effective schools project depends on a judicious mixture of autonomy among participating faculties and a measure of directiveness from the central office, a kind of "directed autonomy."*** As we pointed our earlier, flexibility and independence in making decisions about the implementation of instruction and other aspects of education have been identified as correlates of effectiveness at both the school and classroom levels. On the other hand, except in the case of isolated maverick schools that have become effective largely on their own, success also requires considerable direction and support from central leadership (see below). This conclusion is compatible with those of researchers who have studied innovation in general and found that it is most likely to be successful when it combines elements of "bottom up" planning and decisionmaking with "top-down" stimuli and support in setting directions and guiding the change process (Huberman and Miles, 1982; Hackman and Walton, 1986; Achilles, 1987; Hall and Hord, 1987; McLaughlin, 1987; Dutweiler, 1988; Endo, 1988; Meyer, 1988; Pajak and Glickman, 1989). This type of directed autonomy has been described by organizational analyst Robert Waterman (1988) as involving central leadership in letting employees know that "persons at the operating level who know the most about day-to-day problems" can take action to solve them (Waterman, 1988:82). As Waterman further points out, directed or "guided" autonomy also can stimulate staff commitment by making jobs more meaningful and exciting (1988:92).

A. CENTRAL LEADERSHIP AND RESPONSIBILITIES

Specialists who have conducted effective schools projects and analysts who have examined their implementation have been virtually unanimous in observing that leadership and support from central decisionmakers and, in projects with state government participation, from state personnel are vital considerations in determining whether they will succeed or fail (e.g., Purkey and Smith, 1983; Clark, Lotto, and Astuto, 1984; Pecheone and Shoemaker, 1984; Menahem and Weisman, 1985; Lezotte and Taylor, 1989). Not surprisingly, this same conclusion frequently has been emphasized in research on change in general (e.g., Fullan, 1982; Hall and Hord, 1987; Fuhrman, Clune, and Elmore, 1988). The importance of central leadership was underlined as follows as part of Cox, French, and Loucks-Horsley's (1987) summary of major conclusions derivable from several decades of research on successful change in education:

> Principals...did not act alone, but in combination with district and other building staff...A combination of district/building pressure and support was critical...[in part because] for significant innovations to receive adequate attention they had to have the district's mandate, which...in effect, took pressure off principals....Leadership and support took many forms and came from many sources...The collaboration and support structures of successful change efforts are models for routine district/school operations, not a single recipe for who should do what (Cox, French, and Loucks-Horsley, 1987:23-24).

As regards effective schools projects, experience in Connecticut and elsewhere led Shoemaker (1986) to delineate the role of the district office in six major categories: *initiating*, including statement of mission and goals, introduction of a collaborative planning process, and public commitment from the superintendent of schools and the board of education; *planning*, including development of outcomes-based learning objectives to help "teachers and principals focus their energies on improved teaching and learning"; *conferring legitimacy*, including development of polices to "protect" practices involving systematic homework, rigorous student retention standards, expansion of academic learning time, and other activities involving correlates of effectiveness; *enhancing implementation*, including support for staff development, technical assistance in collecting and analyzing data, and provision of appropriate resources; *evaluating*, including assistance in communicating and using data to affect practice in participating schools; and *sustaining effort*, including a variety of actions to maintain motivation and continuity across the many years required for fundamental improvement in schools (Shoemaker, 1986: 5-6). Sudlow (1989) has pointed out that leadership dimensions such as those cited above are interdependent. For example, district initiative in developing systemwide learning objectives and criterion-referenced tests is not likely to succeed unless the district also makes a continuing effort

to involve teachers in planning at both the system and school levels.

Elsewhere, Shoemaker and her colleagues (Pecheone and Shoemaker, 1984) have pointed out that central leadership is particularly important in ensuring continuity of committed leadership at the building level, which several researchers have identified as a key consideration in describing the demise of promising efforts at schools that received a new principal unwilling or unable to maintain initial momentum (e.g., Farrar, 1984). In our own experience, some effective schools projects have been either severely compromised or virtually destroyed in districts where central administrators maintained the facade and terminology associated with a project but diverted participants' attention to other topics temporarily spotlighted in the latest educational journals and magazines.

Research on district responsibilities in implementing effective schools projects or otherwise contributing to school effectiveness has been limited, but here, too, results confirm the central importance of district leadership and support. For example, Murphy and Hallinger (1986) and Peterson, Murphy, and Hallinger (1987) studied superintendents of twelve unusually effective school districts in California and concluded that they were "actively involved" and "influential" in developing both district and school goals, procedures for actually selecting staff (particularly new administrators), supervising and evaluating principals, establishing and regularly monitoring a "district wide instructional and curricular focus", and ensuring consistency in "technical core" operations such as functioning of categorically funded programs, use of standardized teacher evaluation procedures, and monitoring of curriculum and instruction. A recent study comparing San Diego County schools which had and had not made a "significant measure" of "equity gains" (i.e., more equitable achievement scores across all economic subgroups) was viewed by its authors as confirming and extending Murphy and Hallinger's findings in concluding that the districts in which equity schools are located emphasized "control of principal behavior and site level activity" through selection, supervision, evaluation, and training of principals as well as goal setting, resource allocation, and test analysis. Central office personnel in these districts focussed on "technological core" considerations involving curriculum, instruction, and staff development (Pollack, 1988: 29-31). External direction and support also were being provided by the county office of education, district consortia, the State Department of Education, and other agencies.

Recognizing the responsibilities of central leadership and based on their own experience on working to enhance school effectiveness on a district-wide basis, senior administrators of the Prince George's County Public Schools have delineated the "Characteristics of an Effective School System" that include the following : 1) strong instructionally focused leadership; 2) clear mission; 3) frequent monitoring of student progress; 4) high expectations for all students and staff; 5) "purposeful" involvement of parents and others; 6) curriculum and instruction that assure opportunities to learn for all students; 7) support to schools to assure a safe and orderly environment; 8) high attendance rate among students and staff; 9) strong staff development which "reflects and supports the implementation of the Effective Schools Program"; and 10) clear understanding by all staff of their roles and responsibilities along with an "evaluation process to support the Effective Schools Process." From six to eleven "implications for planning and action" are spelled out for each characteristic. For example, one implication of the first characteristic is that "Directors assure that resources within their departments and areas of responsibility provide assistance and support for school by school implementation of the Effective Schools Process," and one implication for the second characteristic is that "System policies and administrative procedures are re-reviewed on a regular basis, and strengthened or adjusted, as needed, to increase support for the system's mission and improvement goals" (Murphy and Waynant, 1989).

Acknowledging that successful school improvement projects generally require some "top down" initiative (see above) and that central decisionmakers also are responsible for providing many kinds of assistance at each step in the improvement process, one can view the central office role as typically involving some mixture of *decisive mandating of general directions combined with sufficient technical and financial assistance* (cf. Brickell, 1980) to allow for successful implementation of the mandate. Examples of productive action combining central mandates and provision of adequate assistance to schools partici-

pating in effective school projects include the following:

- specification of an instructional management system incorporating an aligned curriculum emphasizing higher order skills, combined with technical assistance regarding relevant testing and instructional strategies and with clerical assistance and computers to make record-keeping manageable for teachers.

- requirements that English teachers assign and grade written papers, together with funding (as provided in Florida) to limit their daily and weekly student load.

- setting of reading comprehension minimal scores to identify students requiring remedial help, combined with funding and technical assistance to provide appropriate compensatory services. Both Connecticut and New York State use the Degrees of Reading Power Test to implement this type of approach.

- preparation of district-level discipline codes emphasizing attainment of an orderly and safe environment, combined with provision of resources for in-school suspension rooms, "time-out" rooms, security guards, or other implementation components that may be required to ensure that the code is effective and equitable. A counterexample in which firm discipline was mandated but funding and other resources were not provided to allow for successful implementation is described in Brieschke (1987).

- introduction of a firm and specific promotions/retention policy (as has been evident at some unusually effective schools), combined with monetary resources and supervision to ensure that retained students are placed with outstanding teachers who provide responsive instruction and that additional afterschool, summer, and other special learning opportunities are provided for retainees. Without such resources and supervision, a firm promotions policy is likely to be at best punitive, and at worst a fraudulent attempt to raise test scores artificially with no substantial improvement in students' rate of learning.

- guidelines to encourage heterogeneous grouping, together with resources to provide relatively small classes so that teachers can deal effectively with heterogeneity.

As is apparent in the preceding examples, much of the responsibility of central leadership in implementing effective school projects revolves around provision and/or assurance of adequate resources to allow for successful implementation of mandated systemwide policies and practices (Stevens, 1988). "Mandating improvement without providing needed resources," as recently was concluded in an evaluation of school-based reform efforts in New York City, "only encourages staff cynicism and inaction" (Kelley and Willner, 1988:67). Central responsibility frequently centers on the need to make sure that changes are manageable for teachers with respect to considerations such as recordkeeping, enhanced school responsibilities in working with parents, class size and daily student load responsibilities, and time for staff development and individual and collaborative planning. Some excellent advice in this regard has been provided by Carnine (1988:86) as follows: "If money and time are lacking to support the innovation . . . , reduce its scope or abandon it altogether."

When central decisionmakers abdicate their responsibilities for providing meaningful assistance to implement their mandates, the result is likely to be an outcome variously described by informed observers with terminology such as "nonimplementation" (Brieschke, 1987), "illusory" implementation (Popkewitz, Tabachnick, and Wehlage, 1982; Williams, 1989), "cosmetic" reform (Orlich, 1989), "symbolic" implementation (Mann, 1989); and "phantom" implementation (Pogrow, 1983). Our own favorite term is "hallucinatory" implementation. We realize that such terms can be used to describe innumerable effective schools projects and other school improvement efforts, but we do not completely despair concerning the possibility that district, state, and other centralized mandates will less frequently neglect the assistance side of the "mandate with support" equation in the future.

B. PROMISING INTERVENTION PRACTICES

Practitioners and specialists who direct effective schools projects have explored and developed a variety of approaches for helping to ensure a successful outcome at participating schools. Approaches which appear to have significant potential in this regard include the following:

- establishment and facilitation of an informal group of participating principals who meet regularly and work together to provide overall guidance for the project. This approach has been used in the Milwaukee RISE project (McCormack-Larkin and Kritek, 1982) and, to a lesser

degree, in the Kansas City, Missouri STEPS project (Groom, 1989).

- provision of parallel and coordinated training for administrators of participating schools (Everson, Scollay, Fabert, and Garcia, 1986; Heims, Flowers, and Anderson, 1989).

- district development and sponsorship of individual school audits focussing on effective schools correlates and implementation. This approach is being explored in the Prince George's County (Maryland) Public Schools and in the Kansas City STEPS project.

- state government operation of principals' academies which emphasize effective schools and/or instructional leadership research. Some encouraging information regarding the functioning of such academies has been reported for West Virginia (Pisapia and Currie, 1989) and California (Wells and Gendler, 1988).

- redesign and utilization of personnel evaluation instruments to emphasize effective schools correlates (Adams, Allen, and Fortenberry, 1989).

- assignment of new or weak principals for several weeks of observation and shadowing of more effective principals (O'Neill and Shoemaker, 1989; Snider, 1989).

- arrangements to ensure that faculty at poorly functioning schools can participate in an effective schools project. If subsequent improvement is not apparent, additional interventions include removal of their principals to participate in full-time training and increase in guidance and assistance form the central office. This approach has been used in Community District 13 in New York City.

- programs, as in Prince George's County, for training and selecting future administrators partly based on effective school research.

- use of a "central office intervention team, consisting of representatives from the basic skills, bilingual, staff development, and records and evaluation divisions", to confer with school improvement teams at ten of the lower achieving schools in a district-wide effective schools project involving elementary schools in Newark (Azumi, 1987:6).

- designation of and reimbursement for teacher leaders who function as a link between their school faculty, the central office, external resources, and project personnel (Pratte, 1989).

- assignment of former (i.e., retired) principals to serve as mentors for principals of schools engaged in site-based planning as part of an effective schools project (Johnson-Lewis, 1988).

- state department of education and university technical assistance for Missouri elementary schools participating in an Accelerated Schools project using approaches developed at Stanford University (Levin, 1987; Wells, 1989).

- functioning of teams, appointed and assisted by the New York State Department of Education, which provide program auditing and other technical assistance for individual schools, particularly those identified as below specific cutoff points on achievement tests (Freeborne, 1984; Office of Elementary, Secondary and Continuing Education, 1987). However, it appears that outcomes generally were not encouraging at overburdened big city schools participating in this project (Kelley and Willner, 1988).

- assignment of Mentor Teachers to comprise twenty percent of the faculty at inner city schools in an effective schools project (Stevens, 1988).

C. SCHOOL-SITE PLANNING AND DECISIONMAKING

As is true with respect to educational change in general, research and experience involving effective schools projects indicate that the building is the key unit in implementing innovations and that most of the multitude of decisions and actions to bring about significant improvement must be reached and carried out at this level (Lezotte and Bancroft, 1985a; 1985b; Marburger, 1985; Richardson, 1988). Before the 1980's, most unusually effective schools evolved from the dedicated but groping efforts of a principal or some other school leader or small group of leaders (see above). Beginning about 1980, efforts to create unusually effective schools on a planned basis proliferated rapidly throughout the United States. In most cases, such efforts have involved multi-school projects which appropriately recognized, at least to some extent, that participating buildings constitute the fundamental unit on which to focus activities to bring about improvement.

Since many effective schools advocates were unwilling to wait for a few unusually successful schools to emerge haphazardly from the unplanned efforts of an

exceptional (and usually "maverick") principal, they were challenged to find other approaches for greatly enhancing effectiveness across a group of previously "normal" schools. Recognizing that one of the central achievements of unusually effective principals involved their success in somehow developing and maintaining faculty motivation to improve instruction, and aware that some research on change in schools and other organizations pointed toward employee participation in decisionmaking as a key variable in developing staff motivation and commitment (Purkey and Smith, 1983; Mace-Matluck, n.d.), effective schools advocates began to emphasize faculty involvement in the preparation and implementation of site-level improvement plans as a primary mechanism that could help large numbers of schools move toward greater effectiveness. Indeed, faculty participation in designing and carrying out school improvement plans frequently has been an important aspect of successful effective schools projects such as those cited in preceding sections of this monograph.

At the same time, public education as a whole has entered a period of change and experimentation in which there is widespread and growing recognition that arrangements for schooling may benefit from a major overhaul based in part on increased teacher participation in site-level planning and implementation of fundamental reforms. Proposals for and experimentation with such reforms vary widely from relatively modest arrangements at one end of a continuum at which teachers are involved in planning somewhat marginal changes to radical efforts which give teachers sole or primary responsibility for redesigning almost everything in their schools. We cannot, in this monograph, provide a comprehensive analysis of such proposals and experiments, some of which are discussed at length in other sources such as Clune and White (1988), Conley, Schmidle, and Shedd (1988), Maeroff (1988), White (1988), and Conley, (1989), but since issues posed by this national trend toward greater teacher participation are also priority concerns in the effective schools movement, we will briefly discuss several such issues which have particular salience for effective schools projects.

1. ***What respective roles should be assigned to the principal and teachers, and what kinds of resources are necessary to help them succeed?*** As pointed out above, unusually effective schools generally evolved historically from the efforts of an exceptional principal who exercised and/or seized a predominant role in the change process, and instructional leadership of the principal is known to be a predominant consideration in improving schools. However, educational reformers recognize that there are few and may never be many principals this exceptional, that some exceptional principals may be floundering in schools with recalcitrant faculty, and also that many less than exceptional principals might be much more effective if more teachers were more fully committed to fundamental changes. Accordingly, there is much support for proposals to "empower" teachers in order to make then equal or even predominant actors in reforming the schools.

Unfortunately, there has been little research to help identify the roles that should be assigned respectively to principals and teachers and the ways they should function in carrying out school effectiveness projects or other instructional improvement efforts (Conley, Schmidle, and Shedd, 1988; Dutweiler, 1988; Conley, 1989). Most effective schools projects have utilized some kind of decision making committee or cabinet including the principal and elected or appointed teacher representatives (Henderson and Lezotte, 1988). Frequently, parents or representatives of the community and/or external organizations also are included, as are students at secondary schools. We believe that such committees are useful and in some cases perhaps even indispensable components in formulating and carrying out an improvement plan (for research supporting this conclusion, see Kopple, 1985), but beyond this conclusion we do not believe it is possible at this time to specify how large the planning group should be, how it should operate, or whether or how it should try to involve the entire faculty in regular votes, membership on subcommittees, or other ways. We also believe it is not now possible to formulate specific guidelines for dividing or distributing decisionmaking authority between or across administrators and teachers. Most likely, optimal guidelines to answer such questions will vary a great deal from district to district in accordance with the people involved and their recent experience and working environments.

Several other kinds of conclusions, are, however, eminently defensible. First, there is a real dilemma in moving to provide teachers with more decisionmaking authority at the same time that research clearly underlines the importance of administrative action and initiative in improving school effectiveness (Leiberman, 1988; Conley,

1989). This dilemma cannot be resolved successfully largely on the basis of flip ideological claims to the effect that empowering teachers will somehow transform them into members of a cohesive faculty committed in practice to the extremely difficult work of reforming schools. Although decisionmaking in organizations is not a zero-sum game in which greater participation necessarily reduces the power of administrators (Tannenbaun, 1968; Pecheone and Shoemaker, 1984), simplistic movement toward teacher empowerment will not in itself do much to improve school effectiveness (Conley, 1989; also see Wagner and Gooding, 1987, for somewhat discouraging data on the general effects of shared influence and decisionmaking).

Our second conclusion, closely related to the first, is that from some points of view many actions required to make schools more effective may run counter to teachers' desires and/or self-perceived interests. For example, substantial improvement is likely to require additional time and effort outside the current working day, acquisition of new instructional techniques will be a painful task for many teachers, and, as we have pointed out in several sections of this monograph, delivery of active and enriched learning focussed on higher order skills necessitates a reduced emphasis on skills that are most easily taught. We agree that this argument can and should be turned around in pointing out that it is precisely the "hardships" of change that may make participation a prerequisite for gaining teachers' commitment to it, but the potentially counter-productive effects of teachers' perceived self-interest also suggest caution in moving toward radical increase in participation and empowerment. This is particularly the case inasmuch as recent research on a school effectiveness project in Maryland found no relationship between extent of teacher participation in program activities and movement toward greater effectiveness on "challenge" correlates selected by participants at each school (Buttram and Kruse, 1988).

Third, success of efforts to involve faculty in decision-making as part of effective schools projects or other thrusts will depend on provision of appropriate and substantial training and related technical assistance for both teachers and administrators (Schmuck and Runkel, 1985; Collins, 1988; Duttweiler, 1988; Harrison, Killion, and Mitchell, 1989; Strusinski, 1989). The importance of training was emphasized as follows in a recent study of developments in a snowball sample of 31 school districts attempting to initiate one or another approach to school based management (SBM):

> Increased training is an obvious response to the difficulty of the roles involved in SBM, and lack of training did surface as a problem. . . In schools or districts where very little training was provided, participants complained that they had been given inadequate orientation to the program (Clune and White, 1988:28-29).

One approach for providing training and related technical assistance for faculty engaged in planning for improved effectiveness has been described by Everson, Scollay, Fabert, and Garcia (1986), who portrayed the implementation of a planning process developed and implemented successfully by the Mid-continent Regional Educational Laboratory (McREL). The McREL approach involves the establishment of a school leadership team with no more than nine members. Initially, four full-day workshops for team members are spaced four-to-six days apart, and participating administrators additionally attend four half-day sessions. Much of the activity in these workshops involves analysis of data collected on student, teacher, and administrator performance at participating schools.

A fourth and closely related conclusion regarding the functioning of site planning committees or councils involves the necessity to provide their members with substantial amounts of time to develop and monitor both their planning procedures and their action plans for change (Duttweiler, 1988; Henderson and Lezotte, 1988; David, 1989; Mauriel and Lindquist, 1989; Saxl, Kaplan, Robinson, and Springer, 1989). As pointed out by Clune and White (1988), planning can be a "very time-consuming process" for principals and teachers who are "already burdened with time-consuming activities" and experience difficulty in devising and pursuing "ideas which go against state laws or district policy" (Clune and White, 1988:28). Absence of time allocated for participation can lead to what Firestone and Corbett (1988) have called "mock" participation.

Fifth, a discretionary fund should be available so that planning committees and, indeed, entire faculties participating in school effectiveness projects can acquire early

experience in aligning and realigning resources and educational goals, and can move quickly to initiate significant changes in instructional programming (David, 1989). The importance and utility of a significant discretionary fund have been stressed in a recent evaluation of efforts to enhance site-based planning in New York City (Kelley and Willner, 1988). Beyond provision of a discretionary fund, some school-based management projects are experimenting with possibilities for allowing faculties to systematically overhaul their budgets with little or no restraint imposed by state or district policies or teacher and administrator contractual limitations (David, 1989). It is too early to determine whether or how often and in what circumstances this approach is likely to succeed.

2. ***How much autonomy should be provided to faculties participating in an effective schools project?*** We realize that from some points of view this is a nonsensical question inasmuch as there are competing considerations which inevitably will suggest the desirability of movement toward more or less autonomy as circumstances change and as differing aspects of education are analyzed and modified. On the one hand research (much of which is cited elsewhere in this monograph) indicates that effectiveness depends on the provision or acquisition of wide latitude in implementing curriculum and instruction at the classroom and school levels (also see Floden, 1987). On the other hand, districts must ensure that there are some commonalities in organizing and delivering educational services across schools if priority needs and problems are to be addressed in a systematic and equitable manner, and research on school effectiveness further emphasizes the importance of district leadership in setting priorities and directions for successful change (see above). What, then, can one conclude concerning issues involving the appropriate amount and level of autonomy for schools participating in effective schools projects?

First, as pointed out in the preceding section, substantial amounts of staff development time and related planning resources and technical assistance are necessary if faculties are to learn to function successfully in a more autonomous manner. In this regard, Floden (1987) and his colleagues concluded their five state study of mathematics content policies with the observation that few school districts have "the inservice education budgets and capacities required for giving substantive preparation for teacher autonomy" (Floden, 1987:32).

Second, as we also pointed out above, movement toward the "full autonomy" pole is a recent development associated with radical "school-based management" and "teacher empowerment" approaches which give faculty nearly total control over budget, curriculum, and personnel appointments. Little is known concerning the potential utility or practical implementation of such approaches (Mauriel and Lindquist, 1989). On the other hand, many schools have greatly improved in effectiveness based on the leadership of teams or committees which have much less autonomy, provided that important considerations such as leadership training, staff development time, and reform of instructional arrangements have been adequately addressed. Therefore, we conclude that one should be cautious about moving too quickly or simplistically toward the full autonomy pole unless or until more is known about how to do so successfully.

Third, there may be particularly good reasons for giving the principal and/or faculty at schools in effectiveness enhancement projects significant control over appointment of new staff and release of current staff. As we saw earlier, vigorous action in selecting new teachers and removing or transferring out current staff frequently is a distinguishing characteristic of unusually effective schools. Such activity may, in turn, often be prerequisite and/or a key contributor to success in ensuring a clear school mission shared by faculty who work together to improve other correlates of effectiveness. On the other hand, vigor in hiring and releasing staff frequently may mostly reflect the personalities and inclinations of unusually effective principals, rather than constituting a necessary prerequisite for success in and of itself. In addition, merely changing the composition of faculty in the absence of appropriate changes dealing with instructional arrangements, practice-oriented staff development, and other correlates probably will not produce significant gains in effectiveness.

Fourth, one of the most promising aspects of recent efforts to encourage and facilitate school and teacher empowerment involves the granting of waivers which allow a school to overcome real or imagined restrictions imposed by federal, state, and local district regulations and policies, and/or by contracts negotiated by school boards and teacher organizations. Thus Collins (1988) has

reported that fourteen schools in the Dade County Public Schools empowerment project have received permission to waive specified regulations or policies as part of larger, site-level planning efforts designed to improve their educational programs. Utilization of waivers ultimately may be most productive as part of a system of "conditional deregulation" wherein ineffective schools receive technical assistance and other resources as well as greater flexibility in working to meet specified improvement targets negotiated with central decisionmakers, but schools which still are ineffective after several years then may be "reconstituted" in terms of leadership and faculty (Mann, 1989). Development of waiver policies may well play an important part in implementing effective schools projects in the future.

However, development of policies to waive unproductive regulation or introduce other teacher empowerment or school-based management approaches should not be confused with the effective schools movement or other research-based efforts to bring about systematic improvement in elementary and secondary schools (Harrison, Killion, and Mitchell, 1989). For one thing, a well designed effective schools project should have a high likelihood of success because it would reflect two decades of useful research, whereas teacher empowerment and school-based management approaches are still in their infancy and little is known concerning their potential for improving instruction or how they should be implemented in practice. In addition, some research on school-based management suggests that its underlying purpose frequently may be aimed at stabilizing political conflict in school districts and developing their "symbolic legitimacy", rather than with changing authority relations or fundamentally improving institutional functioning (Ogawa and Malen, 1989). Years of experimentation and research probably will be required before school-based management approaches stressing waivers or other alternatives for empowering faculty can be expected to bring about substantial improvement in instruction and achievement on a widespread and reliable basis.

In our view, public schools in the United States should not forsake the strong possibilities for improvement that can be gained through effective schools approaches, in order to pursue uncertain and perhaps ultimately unattainable goals associated with recent experiments in empowerment and self-governance. Promising possibilities in the latter direction should continue to be pursued, but such possibilities should not be treated as a substitute for systematic programs to improve elementary and secondary schools through the application of knowledge gained during several decades of research and practice dealing with unusually effective schools.

D. ASSESSMENT OF SCHOOL PROBLEMS AND EFFECTIVENESS

An earlier section of this monograph considered issues involving assessment of instruction in unusually effective schools and in projects to improve school effectiveness. Our concern in this section is with larger questions involving assessment of school effectiveness in general and utilization of instruments to assist faculties in moving to improve their schools with respect to a variety of effectiveness correlates.

A large number of available instruments may be of some help in providing a common language to discuss possibilities for change (Henderson and Lezotte, 1988) and in determining how well a school is functioning, what problems and problem areas should be addressed to improve school functioning, and whether progress is being made toward greater effectiveness. Many of these instruments were developed based on knowledge of organizational development in general (see Schmuck and Runkel, 1985); others were developed specifically for use in projects aimed at improving education based on the characteristics of unusually effective schools.

We cannot in this monograph provide a full review of all the various instruments and approaches for assessing school problems and developments. Fortunately, several scholars have prepared relatively comprehensive reviews of this kind. In particular, Denise Gotfredson (1986) and her colleagues reviewed 27 assessment instruments that have been used to help guide intervention efforts in 39 school improvement projects. After acknowledging that little agreement exists concerning what dimensions should be assessed and the standards to apply in interpreting data, these reviewers reported that most of the instruments attempted to assess a variety of effectiveness correlates such as clear goals, high expectations, order and discipline, collaborative planning, frequent monitoring, and parental

involvement. Their overall conclusions included the identification as follows of instruments that "appear to have most promise for yielding reliable and valid measures" of important school characteristics:

> For assessments relying upon teachers and other adult school staff, the Connecticut State Department of Education School Effectiveness Questionnaire and Interview are inexpensive tools tailored specifically to the effective schools lists. For schools wishing to assess a broader range of school characteristics these instruments might be augmented with the Organizational Health Description Questionnaire (OHDQ), School Assessment Survey (SAS), Climate Effectiveness Inventory (CEI), and the Effective School Battery (ESB), depending upon the content desired. The OHDQ [available from the San Diego County Office of Education] and SAS [available from Research for Better Schools, Inc.] are especially useful for diagnosing organizational structure and process, the CEI [available from the Research and Service Institute] for discipline related constructs, and the ESB [available from Psychological Assessment Resources, Inc.] for both organizational health and discipline (Gottfredson, Hybl, Gottfredson, and Castaneda, 1986: 18-19).

In addition to the work of Gottfredson and her colleagues, sources that provide descriptive and evaluative information on a range of instruments include Anderson (1985, 1987), Kyle (1985), Mace-Matluck (1986), Arter (1987), Fleming and Buckles (1987), and Brousseau (1989). Brousseau also has provided a reliable questionnaire that draws on and reorganizes items from other instruments. Readers also should be aware that a team of researchers in Kentucky (Miller, Efthim, Koppel, and Sayre, 1985; Ruscoe, Yelton, and Miller, 1988) has been developing an assessment instrument which may prove particularly valuable for effective schools projects because it incorporates a multitude of items dealing with instruction-related issues, along with sections on climate, discipline, leadership, expectations, and other correlates.

Similarly, researchers in South Carolina have developed a reliable instrument that assesses teacher, student, and parent perceptions of instructional leadership, academic emphasis, high expectations, positive school climate, frequent monitoring, and home-school relations (Segars and Gottesman, 1989). Staff at the Mid-continent Regional Educational Laboratory also have developed instruments which respectively assess teacher and administrative perceptions of a school on nine correlates (the Describing Your School Characteristics Questionnaire) and time usage in a building (the Academic Efficiency Index), and have been used successfully to shape implementation of effective schools projects (Everson, Scollay, Fabert, and Garcia, 1986).

Thomas Kelly and his colleagues participating in the New York State Effective Schools Consortium at BOCES III in Suffolk, New York also have recently developed an effective schools questionnaire (the Survey of Professional Staff Perceptions of School Program) which has outstanding reliability at both the elementary and the secondary levels across eleven effective schools "characteristics" or dimensions identified as follows: "positive school climate", "planning process", "academic goals/high expectations", "clearly defined curricula", "monitor student progress", "teacher effectiveness", "administrative leadership", "parent involvement", "student responsibility", "rewards and incentives", and "order and discipline" (Kelly and Rooney, 1987). Most of the dimensions are highly intercorrelated, but the parent involvement and student responsibility subscales and, to a lesser extent, the rewards and order subscales are less strongly correlated with others. Many of the 131 individual items appear to be particularly useful for initiating analysis and discussion of possibilities for improving school-level functioning. In addition, Kelly and his colleagues have developed a companion 130 item "Survey of Professional Staff Perceptions of Instructional Program" which includes sections dealing with reading, math, writing, social studies, and science, and related survey instruments to assess parent and student perception of school programs.

Experience in Connecticut and elsewhere indicates that initial assessment of conditions in a school participating in an improvement project, along with related efforts of an assessment facilitator, can play an important part in determining whether the school will be successful in becoming more effective (Gauthier, Pecheone, and Shoemaker, 1985). Thus an evaluation of the Connecticut project indicated that assessment information obtained from teachers and administrators frequently stimulated participants to address school problems more openly and honestly, but the state facilitator also played a critical part in "building trust among the team members so that they could begin to work on school issues" and in "helping the team to develop their own action plan for reentry into the school, presentation of the data and priorities to the

school staff,. . .and/for helping the team begin to implement the project" (Pecheone and Shoemaker, 1984:27). Staff of the Mid-continent Regional Educational Laboratory also report that a skilled facilitator frequently is essential in helping participants in effective schools projects make productive use of data collected through administration of effectiveness assessment instruments (Susan Everson, personal communications, November 10, 1988).

One reason why a facilitator is so important is because data produced by assessment instruments do not automatically or easily identify severe problems or opportunities to improve effectiveness. For one thing, even the best available questionnaires frequently elicit mostly positive responses from respondents, even in schools with serious deficiencies regarding expectations, academic press, and other correlates. In addition, questionnaire components assessing dimensions such as leadership and parent relations include a variety of items dealing with a range of topics that are difficult to analyze and interpret (Gottfredson, Hybl, Gottfredson, and Casteneda, 1986; Brousseau, 1989).

Recognizing the shortcomings inherent in questionnaires, staff of the Connecticut School Effectiveness Project developed an interview schedule to assist in identifying problems and possibilities for change at the school building level. Initial analysis of data collected using the Connecticut School Effectiveness Interview indicated that it yields conclusions substantially different from the State Department's companion questionnaire (Villanova, 1984), particularly with regard to clear school mission, high expectations, opportunity to learn, and monitoring of student progress. Planning teams and facilitators functioning without the interview data thus are likely to be seriously handicapped.

Specialists who have directed or helped conduct effective schools projects report that information profiling a school's standing on expectations, leadership, use of time, and other correlates frequently forces or stimulates participants to confront the conclusion that improvements are both needed and possible (Farrar, 1984; Pecheone and Shoemaker, 1984; Everson, Scollay, Fabert, and Garcia, 1986; Kelly, 1989). When skilled facilitators are available for significant blocks of time to help school leadership teams and faculty committees interpret these data and develop their capacity to work together in planning improvements, information from questionnaires and interviews thus can be a powerful force in bringing about productive change. Data of the kind collected through effective schools assessment instruments frequently may assist in "breaking up" existing agreements and arrangements in the many schools at which, according to Fraatz (1988) and Shannon (1988), faculty generally value comfort with and accommodation to a superficially efficient and rational system above unsettling adjustments that would be required to improve the performance of low achievers.

E. THE STAFF DEVELOPMENT AND SCHOOL IMPROVEMENT PROCESS

Other sections of this monograph highlight the importance of practice-oriented, school-site staff development in providing equitable education using effective schools criteria. Guidelines for initiating and carrying on staff development to increase school effectiveness are identical to those which have been identified as desirable or necessary for any significant school improvement effort in general. As recently summarized by Fleming and Buckles (1987:4), some of the considerations that must be attended to include the following: "identification of consultants and trainers; provision of substitutes or teacher stipends; purchase of materials; availability of meeting space and planning time; [and] availability of travel/meeting expenses." As regards the focus of the staff development process, these authors further concluded that:

> Initial training should be just that: an introduction to the key features, approaches, and materials required. . .[Later activities should] provide opportunities to discuss the plan and how to incorporate activities into daily teaching. . .[and] time for teachers and administrators to reflect on desired practices and their impact on student performance. Programs that include classroom demonstrations, peer observation and feedback sessions and other opportunities for personal reflection have more lasting impact than a flurry of initial activity with no follow-up (Fleming and Buckles, 1987:4).

Suggestions for assisting schools engaged in staff development designed to enhance instructional effectiveness also have been provided by members of the Maine School Improvement Assistance Team sponsored by the state department of education. As summarized by Arbuckle (1986), these suggestions are as follows:

- Be patient.
- Provide staff with carefully selected reading material on relevant research before training or problem solving sessions.
- Space training or problem solving sessions over time, with enough time between to apply information.
- Carefully consider what it is you want to find out before starting to assess your school. Be sure to select data gathering instruments and sources that are most likely to yield appropriate and useful information . . . [do not] grab onto the first 'neat' assessment instrument . . .
- Examine the strengths of your school as well as areas of need. Don't overdo a focus on negatives.
- Remember that assessment is only one step in the improvement process. Don't get stuck on it.
- Take time to be sure you collectively understand the problem or situation you are examining and define it clearly before attempting to generate solutions to resolve it.
- Identify a range of alternative solutions and carefully select those which best match your situation. Don't grab on to the first one.
- Use research on effective staff development practices as a guide in planning improvement activities. Be sure to model these practices.
- Recognize that building needs differ and capitalize on their diversity. Don't push for consistency if there isn't any.
- Think creatively! Don't let the 'yes buts' get in your way.
- Define and formalize collaborative mechanisms within schools to plan and manage continuing improvement activities (Arbuckle, 1986: 4,5).

Planning Components and Emphases. As described and discussed elsewhere in this monograph, effective schools projects typically involve the establishment of building-level planning committees and, frequently, subcommittees which prepare annual or longer range improvement plans that deal, in one way or another, with various correlates of effectiveness. Many of the correlates we discussed in the preceding pages, such as site-level staff development, provision of substantial technical assistance, and orientation toward practical problem solving, have clear implications concerning the preparation and implementation of effectiveness improvement plans. Beyond such rather obvious implications, which we will not belabor here, little is known about how to shape and carry out the planning process. However, a few comments may be helpful regarding experiences reported by persons who have participated in effective schools improvement projects.

1. In line with experience cited above regarding the need to deal with fundamental instructional issues rather than largely limiting attention to orderly school environment, parent involvement, or other planning components which may have relatively little direct impact in the classroom, some educators have concluded that improvement plans should focus explicitly on instruction. For example, school officials in Prince George's County (Murphy and Waynant, 1989) originally required that school-level planners address each major correlate in preparing annual improvement plans, but subsequent experience led to a shift in planning guidelines which now stress improvement in academic achievement. Somewhat similarly, Levine and Leibert (1987) summarized their experience with school-level improvement plans in arguing that planners should specifically address instructional issues such as grouping, pacing, delivery of compensatory education, and strategies for teaching higher order skills.

2. As indicated in several other parts of this monograph, planning in effective schools projects should be "data-driven" in the sense that analysis and decisions should take account of data on key indicators such as the extent to which disadvantaged students attain satisfactory performance on central learning objectives. Experience in many successful improvement projects indicates that appropriate data provide a critically important resource in encouraging and re-directing faculty toward meaningful change in existing practices (Henderson and Lezotte, 1988). As pointed out by Fraatz (1988), much of the evaluation activity that takes place in schools can be viewed more as a bureaucratic "politics of efficiency" designed to enhance organizational maintenance than a "warrant for intervention" to bring about fundamental improvements in effectiveness and equity (1988:45-6). Similarly, Shujaa and Richards (1989) have made a distinction between "organizational learning cultures" (OLC's) at schools which view test data as "symbolic" opportunities to alleviate or prevent public criticism, and OLC's at schools which treat testing as a "strategic" opportunity to identify and address real problems.

Examples of data which have been helpful in modifying attitudes and behavior in order to focus on strategic equity and effectiveness goals include: TESA peer observations in which teachers assess each others' interactions with low achievers; curriculum alignment activities in which faculties analyze a variety of data in collaborating to select specific skills to emphasize and de-emphasize at and across grade levels (Levine and Stark, 1981, 1982; Neidermeyer and Yelon, 1981; Wick and Turnbaugh, 1983); analysis of Degrees of Reading Power data which in effect force teachers to consider possibilities for change when their text and other materials are mismatched with their students' current comprehension levels (Harris and Cooper, 1985; Levine and Eubanks, 1989; Levine and Sherk, 1990); and information on student and faculty "time-on-task" which school improvement specialists help faculty collect and analyze as part of their participation in effective schools projects (Everson, Scollay, Fabert, and Garcia, 1986).

3. Once faculties have been directed to focus school improvement plans at least in part on instruction and have received assistance in collecting and analyzing pertinent data, they should be required and assisted (as usual the two go together) to be as specific as possible in reaching decisions about interventions to improve learning. An excellent example of productive specificity in an instructional improvement plan is provided in the following quotations from the annual progress report and subsequent improvement plan prepared at an elementary school in the Prince George's County Public Schools. After reaffirming the goal of continuing improvement in "pacing of the established reading program" and recognizing that several grades had relatively low reading comprehension scores, the School Planning and Management Team (SPMT) discussed recent progress and next steps as follows:

> The SPMT further analyzed data to determine what factors prevented Grades 2 and 6 from achieving the goal of improved pacing. The analysis showed that at Grade 6, nine students who should have moved to *Banners* from *Gateways* had not achieved a year's progress in a year's time. At Grade 2, twelve students who should have finished *Cloverleaf* and moved into *Sunburst*, had not achieved a year's progress in a year's time.
>
> The SPMT felt the all-day Kindergarten program and an emphasis on reading pacing had contributed to the significant growth at Grade 1. Grade 4 had placed a strong emphasis on pacing, pre-testing, and the use of graphic organizers. Demonstrations lessons had been presented at this level also.
>
> The SPMT discussed several suggestions for continual improvement, especially at the grade levels where progress was not shown. They include more frequent pacing meetings with the principal and reading teacher, more frequent reading inservice meetings on classroom instructional strategies that emphasize comprehension, and more frequent re-grouping on and across grade levels. In addition, several classes will be utilizing cooperative learning strategies in the Fall. The SPMT will meet twice during the summer and will continue its analysis as we develop our 1988-89 improvement plan.
>
> The SPMT reported to the Staff that over 3000 books were read during our Reading Incentive Program. A parent inservice on reading brought several hundred participants including 104 parents to the workshop. A plan for taking basals home was also developed this year. . . .
>
> The SPMT noted the continued decline this year in Grades 3 and 5 on the California Achievement Test. This will continue to be addressed through pacing meetings, pre-testing on magazines, the use of graphic organizers, demonstration lessons on comprehension strategies, continued close monitoring of reading program by the principal, and inservice activities for total staff.
>
> The SPMT noted more teachers integrating ILA strategies into their program but a need for still more involvement in the reading/writing connection. . .
>
> ***Weekly Progress Reports***
>
> The SPMT modified this objective during the year due to the incredible paperwork for teachers. Discussion and dialogue will continue next year as to how to make these progress reports more expedient to teachers. The program of sending Weekly Reports home was extremely successful and noted by the Visitation Team from the U.S. Department of Education as an excellent means of communication. Modification, however, may be necessary—possibly to a bi-weekly report. . . .
>
> ***Nightly Homework***
>
> The SPMT noted this was uniformly upheld. Due to lack of funding, however, the school could not afford composition books to go home for daily parent approval of assignments. Announcements were made via the P.A. system for 100% homework compliance by entire classes. . . .
>
> **[For the Following Year]**
>
> ***Activities/Timeline/Responsible Persons***
>
> • Classroom teachers will plan and meet with the Prin-

cipal, Reading Specialist, and other Instructional Staff to have each student in middle and top groups make a year's progress in a year's time in the basal text.

- Assessments will be made by classroom teachers, Principal, Reading Specialist and other Instructional Staff, *at the conclusion of each grading period*, to adjust instruction groups, and pacing.
- A needs assessment, in the form of a pre-test, will be given to each youngster in Grades 4-6 *before beginning a magazine*.
- Teachers will predict where they expect to be at the end of each grading period, will meet with the Principal and Reading Specialist, and will adjust their pacing and instructing accordingly.
- In-services will be conducted throughout the year *(monthly)* in the area of pacing and reading comprehension.
- Classroom teachers will continue to use ILA methods to incorporate writing into Reading/Language Arts program. Classroom teachers will develop and display two formal writing samples in the hallways *per grading period*.
- Parent in-services/workshops will take place to assist parents with reading skill development at home.
- Continue reading incentive program.
- Reading comprehension teaching strategies will be refined to show improvement in the reading comprehension skills of students as measured by the CAT and CRT scores.

4. A clear signal indicating that a school is concerned largely with "organizational maintenance" and the "politics of efficiency" (Fraatz, 1988) rather than fundamental improvement frequently is present when its plan specifies that most or all teachers or grades will participate to the same extent in the same intervention and/or will receive exactly the same resources. Since imperatives for improvement and needs for increased resources almost always vary from teacher to teacher and grade to grade, equivalence in interventions or parity in resources throughout a school usually mean that faculty have seized on simplistic solutions that require minimal change in instruction. For example, plans we have seen that represented mostly an "easy way out" with little or no modification of ineffective practice include the following:

- components specifying that every teacher receive exactly the same funding for supplementary materials.
- "Schoolwide" plans which redirected Chapter 1 resources to bring about a slight reduction in the size of every elementary class, with no fundamental intervention in arrangements for delivering instruction.
- provision of the same fraction of a (fragmented) paraprofessional's time for every classroom teacher.
- provision of a few minutes a week of obviously meaningless time in a computer lab for every student in a given grade or subject.
- purchase of a computer lab without a teacher or aide to maintain it, or with too few computers to allow for effective utilization.
- central office refusal to support or fund a proposed change or innovation on the grounds that every other school or teacher will want to try it.
- purchase of truckloads of consumable workbooks and ditto sheets that keep students occupied in seatwork.

5. Despite our insistence that school plans should deal explicitly with fundamental instructional issues, we also believe that initial school plans should include components dealing with relatively easy-to-address matters of clear concern to faculty, parents and students. Some of the obstacles to improvement in most schools can be partly overcome relatively rapidly and easily through expenditures of small amounts of money and time. For example, problems involving exterior or interior graffiti, delays in delivery of instructional materials, and lack of maintenance of audiovisual equipment frequently (but far from universally) can be alleviated or eliminated with relatively little trouble or trauma. Decisively acting to reduce relatively manageable problems can greatly enhance the credibility and consequent chances for success of leaders in a significant effective schools project. (Benore, 1989; Sudlow, 1989).

6. If they are to make much difference, school improvement plans generally will involve changes that some or many faculty will find distasteful, frequently because the modifications required will upset customary arrangements or interfere with faculty "rights" and privileges. A few examples that occur with some frequency include the following:

- regrouping arrangements which reduce senior faculty privileges in deciding which students they will teach.

• introduction of tutoring for low achievers before and after school, even though this may require teachers to work beyond their contractual obligations.

• agreement within a department, grade, or entire school to follow common testing practices, homework policies, and/or discipline rules, even though some or many faculty are satisfied with current idiosyncratic practices.

• reassignment of rooms, which may require senior teachers to forego space they have worked hard to customize and improve.

Willingness of faculty in an effective schools project to join together in planning and implementing changes which involve discomfort or loss of privileges is precisely the core manifestation of the effective schools correlate involving faculty commitment to a common, clear school mission. In the absence of such willingness, expressed support for other correlates such as high expectations for all students and focus on mastery of central learning objectives should not be expected to translate into achievement gains among students.

7. Persons responsible for the success of a school improvement committee or council should anticipate that the group will have to deal with and move beyond predictable stages in the development and implementation of a plan for change. In particular, most planning groups require initial assistance with respect to group process skills and procedures for analyzing data and developing plans (Sudlow, 1989). Differing skills and understandings and, in many cases, differing sources of external assistance will be required to help participants succeed in carrying out tasks that are most central at each stage. In addition, an explicit effort may be needed to counteract obstacles posed by "troublemakers" with personality problems that lead them to obstruct the group's functioning (Killmann, 1989).

One useful formulation of the major overlapping stages generally encountered in developing a meaningful improvement plan has been provided by the Effective Schools Unit (1987) of the New York State Department of Education as follows:

> ***Preparation Stage:*** concerned with membership, roles, functions and expectations.
>
> ***Start-Up Stage:*** concerned with establishing trust, workable procedures, time commitments.
>
> ***Group Problem Solving and Process Analysis Stage:*** concerned with how to handle disagreements, do data analysis, identify strengths and concerns.
>
> ***Action-Planning Stage:*** concerned with priorities, funding, resources, activities, and communication with faculty.
>
> ***Implementation and Evaluation Stage:*** concerned with school improvement plan, sustaining and documenting change, revising the plan and monitoring the effectiveness of the team.

8. Based on experience in numerous effective schools projects and other systematic instructional improvement efforts, we believe that it is critically important to understand that such intervention involves an ongoing *process*, not just an *event* or a *product* that a school or district is doing as this year's or next year's manifestation of whatever topic is faddish in educational journals (Carnine, 1988; Buffone and Ciccoretti, 1989; Eiseman, Fleming, and Hergert, 1989). A systematic approach which initiates the first stages of a long-range effective schools project should begin with a clear delineation of steps such as the following (quoted from Henderson and Lezotte, 1988:5):

> Once the [planning] team is established and trained to do its job, we recommend the following steps:
>
> 1. Establish subcommittees. Give each one a correlate from the effective schools research, such as strong instructional leadership or frequent monitoring of student progress.
>
> 2. Write a mission statement. Bring all values, beliefs, and opinions to the table. The purpose of this exercise is to determine where we are, where we want to be, and how to reduce the discrepancy between them. Without clarity about this, the group cannot proceed.
>
> 3. Conduct a needs assessment. Then compare it with your mission statement.
>
> • Use "disaggregated data", that is, data that reports results by race, sex and socioeconomic status. A school may, for example, average in the 60th percentile on reading achievement. But that figure does not tell you whether Blacks are doing as well as Whites, or whether the performance of the middle class and disadvantaged students increases or decreases as they get older.
>
> • Look at strengths and weaknesses, and at the presence or absence of the effective school correlates. What needs work?
>
> • Examine other information in the school's archives, such as dropout rate, school lunch participation, grade retention, disciplinary actions, etc.
>
> 4. Select improvement goals. Pick no more than three. Then develop an action plan with a three year time frame for each one.

F. ORGANIZATIONAL CULTURE ASPECTS AND ISSUES

While there are innumerable definitions of "organizational culture", most authors who analyze this concept stress that it has to do with the "way we do things around here"; i.e., the beliefs and norms members of an organization tend to share concerning what they should or should not, can or cannot do in performing their roles (Deal, 1985; Schmuck and Runkel, 1985; Furtwengler, 1988; Corbett and Rossman, 1989). Most authors also stress more specific aspects of organizational culture such as whether participants are relatively likely to resist or welcome innovations (Corbett, Firestone, and Rossman, 1987; Peterson, 1988), are passive in the face of obstacles rather than exemplify a problem solving, "take care of business" orientation (Heckman, 1987), and stress intellectual as compared with other goals in providing education (Furtwengler, 1985). Aspects of organizational culture that characterize the faculty in a given school obviously are important in determining whether an effective schools project, like other school improvement efforts, will be likely to succeed and how it should be implemented to bring about substantial change.

As noted earlier in this monograph, research on unusually effective schools indicates that their faculties are characterized by a problem solving orientation in designing and delivering instruction, high expectations and requirements for students, and commitment to the goal that all students learn as an ultimate criterion of their effectiveness. Shared beliefs stressing that faculty can identify and overcome problems so that all students can and will learn constitute cultural norms that can be viewed as components of a productive organizational culture which not only helps differentiate between effective and ineffective schools but helps account for the high performance of the unusually effective school.

Organizational culture has been a topic of increasing concern to both analysts and practitioners in business, education, and other types of organizations, in part due to growing recognition that effectiveness depends more on the extent to which participants work together productively than on preparation and implementation of detailed "rational" plans for step-by-step prescription of each person's actions and contributions (Peters, 1988; Vaill, 1989; Papalweis, Bushman, and Brown, 1989-90). For example, Ouchi (1981) argued that successful organizations tend to obtain their members' cooperation and commitment through selecting and socializing individuals (i.e., "clan mechanisms") rather than "bureaucratic" mechanisms that stress rules and performance evaluation. Purkey and Smith (1983:441) concluded that voluntary merging of organizational and individual "workplace beliefs and norms" brought about through "collaboration and participatory decisionmaking on a collegial basis" is more effective than "tightly-coupled, hierarchical" controls. Corbett, Firestone, and Rossman (1987:40) have found that "Viewing the school as a culture" provides an important "lens for understanding how teachers respond to change." Firestone and Wilson (1989: 276,278) pointed out that "previous studies have attended too much to bureaucratic linkages and too little to cultural ones. . .[which] with appropriate content can promote school effectiveness." Vaill (1989: 74:104) concluded that the "dynamic emerging opportunities and constraints of the environment and the evolving feelings of system members about how they are doing and what is possible" as shaped by the "mission or vision of grand strategy" of the organization's leaders are "far more important than any present plan about how to proceed." Elmore (1987,72) has summarized some of the important manifestations of organizational culture in schools in describing how:

> . . .students quickly recognize the absence of a common adult culture, other than that imposed by standard operating procedures, and exploit its absence by disengaging from learning and creating a complex youth culture that has little to with learning and that regards teachers as lying a standard deviation below parents, who in turn lie a standard deviation below the lead actors in television sitcoms.

One major issue regarding organizational culture involves the question of how it is influenced and shaped by leaders in the organization. In this regard, Schein, (1985: 2) has speculated that the "only thing of real importance that leaders do is to create and manage culture" and that there are five "primary embedding mechanisms" (what leaders measure and pay attention to, reactions to critical incidents and crises, explicit coaching and role modeling, allocation of rewards and status, and criteria for recruitment, selection, promotion, retirement, and "excommunication") and five "secondary articulation and reinforcement

mechanisms" (design and structure of the organization, procedures and systems, physical space, myths and stories, and formal statements of philosophy) which leaders use to manage participants' interpretations of events and other aspects of organizational culture. In recent years particular attention has been given to ways in which both leaders and non-leaders may influence organizational culture through stories, legends, myths, analogies, rituals, ceremonies, sagas, images, parables, and related symbolic interpretations in various kinds of organizations (e.g., Deal and Kennedy, 1982; Taylor, 1984; Deal, 1985; Carlson, 1987; Firestone and Wilson, 1987; Wimpelberg, 1987a; Kuh and Whitt, 1988; Peterson, 1988; Smith and Peterson, 1988; Deal and Peterson, 1989).

Recent analysis by Peterson (1988) and Deal and Peterson (1989) also has drawn attention to a variety of means that principals use to develop an organizational culture that can facilitate greater school effectiveness. In addition to providing strong support for productive teachers, distributing "material, social, and symbolic" rewards to reinforce desired norms and roles, and recruiting a staff that supports the principal's vision of school improvement, effective cultural leadership involves treating crises as occasions for communicating and promoting central organizational norms and beliefs, as well as "modeling, teaching, and coaching" to support core goals such as professional development and enhanced teacher collegiality (Peterson, 1988). Deal and Peterson (1989:12) describe the "cultural dimensions" of the principal's job as involving "symbolic leadership" to affirm values through "dress, behavior, attention, routines", and other means, and action as a *potter* who shapes the school's "rituals, ceremonies, [and] symbols", a *poet* who uses language to reinforce and "sustain the school's best image of itself", an *actor* who improvises in the school's "inevitable dramas", and a *healer* who oversees "transitions and changes in the life of the school". The process of cultural leadership, according to these authors, generally involves a series of steps such as the following (Deal and Peterson, 1989:119-120):

- read the existing culture (or develop the vision of a *new* culture). Understand the inner workings of the school's values and norms and reflect on one's own hopes and fears for the school.
- identify the norms, values, and beliefs to retain, to reinforce, and to reject.
- decide to begin the process of shaping the culture.
- work with *all* the school's stakeholders to shape and illuminate the mission and purposes of the school.
- reinforce the core values and norms of the school through modeling, coaching, attention; the observation of ceremonies, rituals, and traditions; and the recounting of stories, anointing of heroes and heroines, and use of the informal network.
- creatively confront resistance and deal with conflict. Use these to reinforce and signal the mission of the school and the values of the culture. Celebrate success and affiliation in the culture.
- recruit and retain school people who accept and revel in the particular mission.
- establish potent transitional and celebratory ceremonies and traditions.
- regularly re-evaluate and assess the culture.
- continue reinforcing the norms and values...and *celebrate* the new culture and its successes.

A second major issue involves the extent to which fundamental, lasting improvement in organizational functioning can be brought about without systematic change and improvement in organizational culture, at least in the case of organizations which are functioning poorly in part because shared norms and beliefs are unproductive or dysfunctional. A closely related issue involves the reverse possibility that improvements in organization culture may be extremely difficult to bring about unless the organization is functioning at some minimum level of adequacy which allows participants to look beyond immediate, day to day problems and crises.

Unfortunately, little systematic research has been conducted to help leaders in schools or other organizations knowledgeably address issues and questions involving the extent to which change in organizational culture must take place very early in an effectiveness improvement project. As regards organizational culture and stages in school improvement, Taylor (1984) studied elementary schools engaged in effective schools projects and found that those which had made progress with respect to several aspects of organizational culture (i.e., development of a "working consensus" and "negotiation of rubber duck areas")

showed signs of continuing and lasting improvement in functioning, whereas those which had not improved these aspects of culture had "plateaued" after registering some progress with respect to climate and achievement. In addition, Taylor concluded that progress in improving organizational culture in the schools she studied reflected principals' skills in using their "knowledge-in-action" to enhance "sensemaking processes" through "strategic communication episodes" and "units of strategic dialogue" (Taylor, 1984:177). As regards organizations in general, Kilmann (1989: 38) argues that the "culture track is the best place to commence the process of change," followed by overlapping stress on improvement in management skills, team building, strategy-structure, and reward systems. However, although Kilmann provides an example of an apparently successful application of this sequence at Eastman Kodak, comparative studies were not conducted to assess its utility across a number of differing kinds of organizations.

Although the generalization that organizational culture should be improved or, at least, attended to early in a school improvement project cannot be viewed as well established, it is reasonable to accept this conclusion as a working hypothesis given the many ways in which cultural considerations appear to be important in the development and implementation of such an effort. For example, the importance of a shared criterion of effectiveness stressing that all students can learn, faculty input in decisionmaking, a general orientation toward problem solving, and other culture-related characteristics of unusually effective schools cited earlier in this monograph suggests that explicit attention should be given to these and other aspects of organizational culture early on in an effective schools project. Indeed, multi-school projects to improve effectiveness on a systematic basis typically do pay attention to various cultural considerations during the initial stages of implementation. Frequently utilized instruments such as the Connecticut School Effectiveness Questionnaire and others cited in the preceding section on "Assessment of School Problems and Effectiveness" include items dealing with existence of a clearly articulated mission, the principal's role in developing shared understandings, the prevalence of high expectations for students, and other aspects of organizational culture, and much of the work of project facilitators usually focuses in one way or another on analyzing and improving the organizational culture of participating schools.

Despite the apparent centrality of cultural considerations in understanding and working to improve organizational effectiveness, it is somewhat uncertain whether and how knowledge or organizational culture and its dynamics can be used to improve outcomes in a planned, intentional fashion. In this regard, Vaill (1989: 162,158,157) has described the "conceptual and semantic swamp" organizations tend to get mired in when members try to develop clarity in their mission, as well as tendencies for activities aimed at improving organizational culture to degenerate into "off-site visioning seminars and spirituality workshops" that take the place of "active pursuit and fulfillment of the mission and vision." In general, he concludes, "those who would 'change the organizational culture' have a different and more difficult job than some of them seem to realize" (Vaill, 1989: 159). Similarly, Firestone and Wilson (1987: 283) have examined the literature on development of organizational culture in schools and concluded that "Until there have been more studies of the professional culture of schools, judgement must be withheld about how susceptible they are to administrative influences" exercised as part of a planned effort to shape participants' norms and beliefs.

Nevertheless, several authors have reported positive results regarding explicit attempts to modify organizational culture at schools participating in effective schools projects or similar school improvement efforts. Examples include the following:

- Miller (1982: 36) described developments at a school at which emphasis was placed on encouraging faculty to "take collective responsibility for what happened . . . [and for not blaming] the children or their parents for low achievement," as part of an effective schools project in a low income urban district. Consultants working with the faculty helped institute a "climate watcher's process" through which participants monitored their interactions to "avoid negative or stereotypical comments" and to increase "emphasis on positive discussion about all children's ability to learn" (Miller, 1982: 37). This emphasis on faculty norms regarding expectations for students along with other interventions such as introduction of academic team games and facilitation of faculty collaboration produced "encouraging" achievement gains.

• Deal (1985) described organizational culture aspects of an effective schools project in which consultants representing the Urban Coalition "coached a group of New York City elementary schools in developing their histories... Teachers, administrators, parents, and residents came together to reconstruct a school's experience, to weave private recollections and interpretations into a common story." In conjunction with numerous other efforts dealing with climate, leadership, instruction, expectations, and other effectiveness correlates, this approach to developing a "shared vision" produced "dramatic" gains in "achievement, morale, truancy, and vandalism" (Deal, 1985: 615-616).

• Taylor's (1984) study of 22 schools in five districts (including small town, big city, and suburban districts) engaged in school improvement activities scrutinized the principal's role in the development of organizational culture and the management of change. She found that almost all of the principals of schools which had improved in achievement and other indicators of effectiveness had articulated "early on the primary beliefs and attendant goals of the school improvement program in their own or in the school's terms." She also concluded that, "If the school's culture does not commit to these beliefs and/or have the capacity to reach the program goals, then the principal must first go about changing the culture of the school" (Taylor, 1984:58).

As contrasted with effective schools-type projects which include components dealing with faculty culture as part of a relatively comprehensive effort to improve educational programming and delivery, some organizational development approaches concentrate initial attention largely on organizational culture. For example, Furtwengler (1985, 1988) has described activities involving "an organizational process" intervention titled Reaching Success Through Involvement (RSI)which is designed to "alter the culture and climate of schools as a means of increasing discipline effectiveness" (Furtwengler, 1988: 1-2, in press draft). Through the formation of faculty and student leadership teams, collection and analysis of self-study data at in-service meetings and retreats, and development of plans for improving climate and instruction, participants work to change the "cultural norms of the school that are responsible for the school's level of effectiveness" (Furtwengler, 1985: 263-264).

Furtwengler reports that thirteen of the fourteen schools involved in initial RSI implementations clearly improved with respect to climate and discipline, and the schools which began with severe discipline problems were able to move beyond concern with "survival" to explicit consideration of issues involving curriculum and instruction (1985: 264). In the context of our preceding discussion of relationships between aspects of climate (e.g., order, discipline), organizational culture, and school effectiveness, one can view the RSI and similar approaches as a way to set the stage for substantial and lasting improvement in achievement and other performance outcomes, provided that faculties do not wait too long to seriously and systematically address instructional arrangements, curriculum alignment and coordination, provision of substantial staff development resources at the building level, and other effectiveness correlates most clearly involved in successfully designing and delivering curriculum and instruction.

VI

Context Differences: Grade Level, Socioeconomic Status, and Rural Schools

Because much of the research on unusually effective schools has dealt primarily with elementary schools, particularly inner city elementary schools enrolling mostly working class students, many analysts have cautioned against automatically assuming that results and conclusions apply equally well for secondary schools and schools with a mixed or middle class enrollment (Wayson, 1988; Grady, Wayson, and Zirkel, 1989). In addition to these two major aspects of school context (i.e., grade level, socioeconomic status), many other contextual variables such as rural/urban location, public/private sponsorship and control, lack of experience/experience of staff, complex/simple instructional technology, strong/weak external pressures to improve, and voluntary/involuntary participation in an improvement project may well generate differentials in the characteristics that are associated with effectiveness at differing schools and in the kinds of changes that are likely to improve effectiveness (Hallinger and Murphy, 1987). Thus Wimpelberg, Teddlie, and Stringfield (1989) have argued convincingly that effective schools research in the future should pay increasing attention to considerations such as grade level, social class of the schools and community, availability versus nonavailability of additional resources from parents and the community, size of school and district, and other contextual factors that may have a large impact on school effectiveness and on the success of improvement projects.

Numerous contextual aspects that are important in analyzing and working to improve school effectiveness have been mentioned in preceding sections of this monograph. For example, we pointed out that leadership may derive primarily from the principal or, less frequently, other school leaders, that organizational cultures may support or resist change, and that heterogeneous grouping, individualization, and other instructional approaches are likely to be more workable and/or appropriate in some situations than others. We will neither repeat those points in this section nor attempt to identify and analyze all the remaining context variables that may have some relevance for practitioners and researchers concerned with the effective schools movement. Instead, the remainder of this section will summarize research and analysis that has been concerned with three of the most important aspects of context bearing respectively on **secondary schools, socioeconomic status,** and **rural schools.** We then conclude this section with some speculative comments regarding possible differentials in the sources of stimuli which can function to bring about improvement in different types of schools.

1. Secondary Schools

For various reasons, observers have expressed doubt that characteristics associated with unusual effectiveness in research conducted mostly on elementary schools also differentiate between effective and ineffective schools at the secondary level. For one thing, upper intermediate schools (i.e., junior highs and middle schools) and senior high schools usually are much larger and more complex than elementary schools (Pink, 1987). In addition, secondary schools generally have more diffuse goals (e.g., career preparation, dropout prevention, promotion of diversity)

that frequently become more salient as students proceed through school, thereby complicating attempts to attain or identify unusual effectiveness (Arnn and Mangieri, 1988; Teddlie, and Stringfield, 1989). Third, measurement of performance is even more difficult than at the elementary level due to ceiling and floor effects in achievement testing, potentially negative effects on achievement scores of success in reducing dropouts, and other causes (School Effectiveness Unit, 1989). Finally, in our experience it frequently is considerably more difficult to convince secondary teachers to try promising approaches such as cooperative learning or mastery learning than is true with respect to elementary teachers. Consideration of specific correlates of effectiveness also raises questions concerning their functioning and applicability in large secondary schools. For example, successful instructional leadership involving the supervision of numerous subject area specialists may be very different than is true with respect to elementary school generalists (Little and Bird, 1987; Zirkel and Greenwood, 1987; Hallinger and Murphy, 1987), expectations may have little discernible impact if many students lack prerequisite learning skills, vigorous selection of teachers may fail to affect a critical mass of a large faculty, and administrators may be unable to monitor developments frequently and personally unless they (infeasibly) try to spend all their time "wandering around." In addition, some correlates such as students' "time-on-task" may have a vastly different meaning at the secondary than the elementary level (see below).

Nevertheless, some empirical studies as well as related analyses do support the conclusion that correlates associated with effectiveness among elementary schools also help in accounting for or, at least, in describing unusually effective secondary schools. Although systematic studies of effectiveness at the secondary level are much more difficult to carry out and are more susceptible to varying interpretations and criticisms, several analysts have reported that unusually effective secondary schools tend to exemplify correlates frequently identified in research on elementary schools. Thus researchers in California studied eighteen high schools which had been nominated as unusually effective and reported that they appeared to exemplify a "clear sense of purpose", "high expectations", "commitment to educate each student as completely as possible", and a "safe, orderly learning environment" (Murphy and Hallinger, 1985:18). Somewhat similarly, Garibaldi (1987) and Firestone (1989) and his colleagues independently examined information on two differing sets of high schools nominated as unusually effective and concluded that they ranked high on orderly climate, administrative leadership and support, and high expectations. Using data from the High School and Beyond database, Bryk and Thum (1989:26) found that high schools characterized by "committed faculty, an orderly environment, and a school emphasis on academic pursuits" had less absenteeism and dropping out after taking account of SES. In addition, a more intensive and systematic study of junior high schools in a suburban district in Louisiana found that those which had the highest achievement scores after controlling for SES also had the highest average scores on "low-inference" observation measures of classroom climate and management (Teddlie and Virgillo, 1988).

More important than the handful of studies that have attempted to identify differences between highly effective and ineffective secondary schools while controlling for SES, it is reasonable to assume that high expectations, productive climate, outstanding leadership, effective instructional arrangements, and other correlates discussed in the preceding pages are as important at the secondary as at the elementary level. Indeed, they may well be viewed as *more* important precisely because they are more difficult to attain in secondary schools. Furthermore, it should be noted that some of the studies cited in our discussion of correlates dealt wholly or partly with junior high schools or middle schools (e.g., Levine, Levine, and Eubanks, 1984). It is difficult, at least for us, to understand how a secondary school can be particularly effective in the absence of the kinds of characteristics identified in most formulations of correlates encountered in the effective schools literature.

However, since secondary schools generally are more complex and difficult to improve than are elementary schools, it almost certainly is true that unusual success at the secondary level involves action that goes "beyond" the usual correlates, as well as differing manifestations of the correlates in practice. In this regard, several authors have identified characteristics of unusual effectiveness which they believe have particular salience for secondary schools. Thus Hallinger and Murphy's (1985:18) analysis of successful high schools in California cites a "core set

of standards within a rich curriculum", a "special reason for each student to go to school", a "sense of community", and "resiliency" in "bouncing back" from loss of funds and other crises as correlates of unusual effectiveness, and Firestone (1989:45) and his colleagues concluded that the high schools nominated for inclusion in their study manifested a high degree of "curriculum articulation" and "relevance" (i.e., "quality counseling", "career programs").

In a related formulation, Levine and Eubanks (1989:49) described several urban high schools they believed were unusually effective, and summarized some of their "commonalities" as follows: "concentration on improving comprehension" and other fundamental learning skills; "provision for alternative types of learning arrangements and experiences", and "substantial staff turnover and/or selection." Regarding intermediate schools, Levine, Levine, and Eubanks (1984) described a group of unusually effective inner city schools and characterized them in terms of their common emphasis on higher order cognitive development, students' personal development, and high expectations implemented on a schoolwide basis. In our opinion it is easy to understand how and why a "rich" and 'relevant" curriculum with alternative learning opportunities and career programs, substantial staff turnover, a sense of community, emphasis on both cognitive and personal development, resilience in the face of massive obstacles, and other, related characteristics are more difficult to attain and perhaps for this reason more crucial to success at the secondary than the elementary level.

As we mentioned above, some of the correlates usually identified for elementary schools may have little applicability or may function quite differently in secondary schools. An excellent example is provided by time-on-task variables, which numerous studies have associated with gain in student achievement at the classroom level and several authors have identified as a characteristic of unusually effective elementary schools (e.g., Stringfield, Teddlie, and Suarez, 1986). A recent study by Teddlie and Virgillo, however, reported that student time-on-task at "more effective" junior high schools (64% on classroom observation ratings) was clearly below the level registered at "typical" junior highs (73%). If replicated by other research, this type of differential pattern may mean that high time-on-task at the junior high level frequently is attained through expending class time on seatwork which keeps students occupied with low-level chores.

Our own experience in secondary schools supports this conclusion inasmuch as we have visited many high schools which would rank relatively high on time-on-task because their teachers stress meaningless seatwork designed partly to keep students busy. In one particularly deplorable situation, we came across an experimental program that received a low evaluation because students were being pushed to engage in active learning rather than seatwork, and hence received relatively low time-on-task scores. Such misinterpretation of a supposed effective schools or effective teaching correlate could have severely damaging implications and consequences for schools participating in an effective schools project: following the accepted dictum that comprehensive improvement efforts should collect and utilize data to guide implementation (i.e., should be "data driven"), administrators might well reinforce tendencies to stress unproductive seatwork in order to attain maximum student time-on-task.

Before concluding this section, we should note that our brief review of the scant literature dealing explicitly with unusually effective secondary schools has not included examination of a useful and growing strand of research that focuses on the establishment and functioning of small "alternative" units inside or separate from "regular" junior and senior high schools. Generally aimed at improving educational opportunities for disaffected and/or low achieving students, alternative units can overcome many of the problems that hamper effective instruction for a significant proportion of "marginal" students (Levine, 1975; Wehlage, 1983, 1988; Druian and Butler, 1987; Orr, 1987; Wehlage, Rutter, and Turnbaugh, 1987; Gerics, 1989).

In addition, we believe it is clear that alternative units and programming should be an important part of effective schools planning for improving secondary students' achievement through restructuring of high schools. Even if it accomplishes nothing else, a thoughtful plan for introducing alternative units at least directly addresses underlying "triage" issues that bedevil many high school faculties when they work to retain and assist alienated or dropout prone students without detracting from standards or expectations for other students who are experiencing more success in existing programs. Issues involving the

relationships between regular and alternative programming should receive high priority in future research on the development and implementation of effective schools projects in junior and senior high schools.

As regards research and experience concerned with differences between the elementary and secondary levels in designing and implementing plans to create unusually effective schools, little guidance currently is available beyond considerations cited or alluded to the preceding pages (e.g., stress provision of a "rich" curriculum that gives each student a reason to attend, establish appropriate alternative units and programs). However, based largely on our personal knowledge of developments at junior and senior high schools at which faculties have experienced some success in grappling with the difficult challenges involved in fundamentally improving instruction, we believe it is particularly important to reach agreements concerning the learning skills and objectives that will be emphasized and, equally important, tested in each secondary subject and grade level.

Lacking such agreement among faculty in a given school, it is very difficult to hold students to high expectations and requirements across sections and course sequences, identify students who require additional help provided as part of a plan to enhance institutional effectiveness, or develop a unified school mission. Such problems generally seem to be more acute at the secondary than the elementary level, perhaps because high school instruction usually is more fragmented and uncoordinated. Reaching agreement on key skills and objectives to be stressed in instruction and testing thus appears to be a key step in carrying out plans for school-wide improvement in effectiveness at many upper intermediate and senior high schools (Benore, 1989).

In the case of secondary classes, schools, or programs designed to help students most of whom initially are low achievers, another aspect of instructional coordination also seems to be particularly important. We are referring here to efforts to coordinate instruction across subject areas, for example by introducing vocabulary terms in several subjects during the same day or week, ensuring that management techniques are consistent from one class to another, and emphasizing reading and math skills that are immediately applicable in content studies such as history, science, and literature (Smith, 1989). Obtaining this type of coordination to support the learning of initial low achievers is easier to do in small alternative units which facilitate teacher collaboration in planning and delivering instruction, a consideration which helps account for the impressive achievement gains sometimes registered among low achieving secondary students in school-within-a-school units at inner city intermediate and high schools (Gooden, Lane, and Levine, 1989; Levine and Sherk, 1990).

4. Socioeconomic Status

The most comprehensive and important studies explicitly seeking to determine whether or how unusually effective low status schools differ from their more affluent counterparts have been conducted by Hallinger and Murphy (1985, 1986, 1987) and their colleagues in California, and by Teddlie and Stringfield (1985, 1989) and their colleagues in Louisiana. The California study involved extensive analysis of eight elementary schools, selected from among more than 3,100 statewide, which registered third and sixth grade reading and math scores above predictions based on socioeconomic status (SES) for three consecutive years beginning in 1978-79. Two of these schools were low in SES, two were classified as lower-middle, two were in middle income communities, and two were upper-middle (Hallinger and Murphy, 1986).

The researchers found that the unusually effective schools in their study were generally similar in the sense that both those which were relatively low and high in SES exemplified several of the commonly cited correlates, namely safe and orderly environment, a clear mission, capable instructional leadership, high expectations, a "well-coordinated curriculum", "monitoring of student progress", and "structured staff development" (Hallinger and Murphy, 1986:351). However, the data also indicated that the effective low SES schools differed from the effective high SES schools in the following ways:

- curriculum and instruction in the low SES schools were more narrowly focused on "basic skills", and alignment of curriculum with instruction was "moderate" rather than "tight".

- instructional leadership emphasized both "technological" and "climate" goals, whereas administrators in the high SES schools primarily stressed technological goals.

In addition, though principals in both types of schools "played an active role in coordinating curriculum and instruction", those in unusually effective low SES schools were "more forceful in asserting themselves in making instructional decisions and in intervening in classrooms where teachers were not meeting their expectations" (Hallinger and Murphy, 1985:3). The data also suggested that principals in high SES schools can succeed using a "more collaborative and collegial style of decision making" than can principals in low SES schools (Hallinger and Murphy, 1985:343).

- homework expectations were "low to moderate" rather than "high."
- control of instruction by the administration was "high" rather than "low to moderate."
- administrative task orientation was "high" and relationship orientation was "low to moderate", rather than "moderate" and "moderate to high", respectively.
- "home-school cooperation" was weak and parent involvement was "limited", rather than "strong" and "pervasive", respectively.
- "rewards and recognition" were relatively frequent and visible rather than less frequent and intrinsic.
- high expectations for students originated largely from the school rather than the "home and school", and "future expectations" for students were "moderate" rather than "high" (Hallinger and Murphy, 1986:337).

As pointed out by Hallinger and Murphy, the differences they found between unusually effective low and high SES schools make sense theoretically because it is logical to conclude that improvement in the typical low SES school requires more active leadership, more profound climate improvements, and more focused faculty action than is true in the typical high SES school where achievement and climate already are relatively satisfactory. Given their very low starting point with respect to expectations for students, effectiveness of instructional arrangements and curriculum, functioning of rewards and recognition, and other factors, low SES schools require stronger and more comprehensive initiatives, as compared with high SES schools. These differentials also imply that "successful leadership in one type of organization may be ineffectual in another" (Hallinger and Murphy 1985:3).

In close agreement with the findings reported by Hallinger and Murphy, Teddlie and Stringfield and their colleagues studied a sizable sample of 76 elementary schools in Louisiana and found that the clearest differential between unusually effective and less effective middle SES schools involved a tendency for teachers in the former group to push students harder academically and to take greater "responsibility" for students' achievement than did teachers in "typical" middle SES schools. As regards low SES schools, expectations and aspects of academic climate also were higher in the unusually effective subset, and teachers in the unusually effective low SES schools placed a greater emphasis on reading, math, and homework than did teachers in the less effective low SES schools. In addition, principals in the more effective low SES schools apparently visited classrooms more frequently and played a larger role in hiring teachers than did principals in the less effective low SES schools. Thus the California and the Louisiana studies agreed in concluding that focussed instruction and active administrative leadership seem to be more clearly associated with unusual effectiveness in low SES that in higher SES schools.

3. Rural Schools

Although several authors have asked whether or how unusually effective rural schools may differ from unusually effective urban schools, hardly any research has addressed this issue explicitly. Paucity of research of this kind is not surprising inasmuch as rural schools and districts are very diverse and there is no commonly-accepted definition to facilitate their identification and classification (Levine and Havighurst, 1989).

One of the few studies that has specifically examined possible differences bearing on the definition and enhancement of effectiveness between rural and urban schools is an investigation at a rural school of short-term awareness sessions, graduate level courses, and "actual conduct" of a "school assessment and improvement process" involving the literature on effective schools (Buttram and Carlson, 1983:73). The authors concluded that: it was difficult to focus faculty attention on the achievement of disadvantaged students; climate concerns tended to "revolve" around the adequacy of instructional space and building maintenance; assessment of leadership at small schools lacking principals centered on head teachers or

other leaders; lack of resources for staff development time and travel and for development and implementation of an improvement plan was a particular problem; traditional indicators of student SES did not appear to be reliable; and the awareness stage seemed to last for an inordinately long time (Buttram and Carlson, 1983: 75-76). More research is needed to determine whether these kinds of problems are particularly or unusually widespread among rural schools participating in an effective schools project.

Among observers who have attempted to analyze rural schools from the viewpoint of the literature associated with the effective schools movement, Lomotey and Swanson (in press) speculate that rural schools tend to be smaller, more ethnically homogeneous, and more "nurturing" and community centered than "typical" urban schools; these qualities, the authors conclude, could allow rural schools to become the rural counterparts of effective urban schools through the application of "school based decision-making" with adequate supportive services. More directly concerned with disadvantaged students in rural areas, Conklin and Olson (1988:5) assessed the literature on effective schools for implications "most relevant to poor, minority, rural and isolated educational settings." Although Conklin and Olson concluded that the small size and isolation of rural schools frequently inhibit "attention to unique needs of disadvantaged" students, rural schools may be in a relatively advantageous position to develop faculty consensus, work productively with parents and the community, and involve students in school activities. Particular emphasis in planning to enhance rural schools' effectiveness, they also concluded, should be placed on ensuring that there is "cultural relevance in curriculum materials and teaching techniques" (Conklin and Olson, 1988:3, 6-10, 15).

In general, there currently is little or no reason to believe that correlates we have identified as characterizing unusually effective schools are less important or relevant in rural than urban settings, even though most of the research has been conducted in urban schools and, in many cases, in poverty areas in big cities. Although analysis cited above suggests that resource limitations typical of many rural schools may constrain implementation of effective schools projects, this disadvantage may be counterbalanced by considerations facilitating communications and student involvement at small schools in rural areas. Overall, however, it appears that effective schools approaches should be as useful in improving education in rural as in urban schools.

4. Impetus for Improvement

Beyond the research-based contextual differences cited in the preceding pages, differing types of schools may differ greatly with respect to sources of stimuli for bringing about substantial improvement in their functioning and performance. More specifically, we have in mind the probability that from some points of view it is easier to create faculty consensus regarding the need for fundamental improvement in low achieving, inner city schools at which achievement is dismally low, than is true at higher SES schools and rural schools at which average achievement may appear to be acceptable.

In the case of schools enrolling mostly low SES students, achievement frequently is so low that it is difficult to publicly deny the need for radical reform in instructional and organizational arrangements. Particularly since low SES schools typically have substantial federal and state funding that provides a base to initiate meaningful change, failure to do so suggests that serious obstacles must be present such as low expectations (i.e., the belief that many students cannot learn much), poor leadership, unwillingness to engage in time and energy consuming change efforts, inadequate technical assistance, constraints involving external regulations or teacher contracts, or all of the above. But at least faculty can move to an examination of these obstacles without quibbling over the need for improvement.

By way of contrast, the situation at mixed class or middle class schools with average or above average achievement may appear deceptively satisfactory. In many if not most such schools, however, disaggregation of achievement data would show historically widespread patterns wherein low SES and/or minority students score much lower than higher SES or nonminority students, scores for all groups are relatively much lower on fundamental learning skills such as reading comprehension and math problem solving than on mechanical sub-skills, and/or girls have much lower scores in mathematics and

science than do boys. Disaggregation of achievement data by SES, race/ethnicity, and sex would make these discrepancies instantly apparent.

Since there is no inherent reason why faculty cannot prepare and analyze disaggregated data for students in their own school, even if central office personnel fail to provide data on a disaggregated basis, we must conclude that failure to disaggregate at the school level represents at best a lack of serious concern regarding the performance of students, particularly disadvantaged students, on fundamental learning skills. If we believed in conspiracy theories, we might further conclude that faculty in such schools are participating knowingly or unknowingly but actively in a larger system organized to perpetuate social and economic disadvantages. In any case, creating an initial impetus for improvement at schools which do not disaggregate achievement data frequently will require intervention on the part of the central office, state government, community leaders, or other external agents. Failure to do so will leave many schools which have high average achievement scores but low scores among disadvantaged students in a position analogous to that of the bus driver who failed to stop for some passengers because that would make him look bad by "disrupting" his schedule.

VII

Reprise and Concluding Comments

Rather than providing a comprehensive summary of conclusions delineated in the preceding pages, we will briefly review and elaborate on several which have particularly important implications for the design and implementation of effective schools projects.

First, our analysis in several places emphasized that correlates of unusual effectiveness should be viewed more as prerequisites for attaining high and equitable levels of student achievement than as any kind of "guarantee" that a school will be successful. This is partly because success in dealing with one or a few correlates will not bring about effective and equitable outcomes in the absence of action dealing with other correlates.

Second, the correlates represent issues and challenges that faculty must grapple with to make their school effective, not detailed prescriptions or recipes for attaining that status. There are innumerable steps that can be taken to make a school's climate and culture productive, improve leadership, enhance expectations and requirements for satisfactory student performance, strengthen instructional arrangements for low achievers, or bring about schoolwide improvement with respect to other correlates. No specific action or set of actions is "right" for every school. From this point of view, we know both more and less about making schools effective than we sometimes acknowledge. Research has identified the kinds of actions faculties should consider to make their schools more effective, but it cannot tell them exactly how to proceed in their inevitably different situations.

Third, much of what happens at unusually effective schools involves teachers' and administrators' awareness and insight in explicitly identifying and addressing obstacles to success inherent in whatever approaches are being used to deliver instruction or otherwise improve educational opportunities. For example, if some form of levelling is being used to provide special assistance for low achievers, care must be taken to overcome potentially negative effects of homogeneous arrangements. Alternately, faculties emphasizing individualized and small group instruction in a heterogeneous setting must make sure that sufficient material, technical, and human resources are available to ensure the success of this approach to instruction.

Similarly, if regular instructional leadership is to be provided primarily by the principal, other persons must be available and designated to help carry out responsibilities involving matters such as financial management, community relations, and student discipline. Alternately, the principal may concentrate largely on a range of non-instructional functions, but specialists must then be available to work with teachers on a daily basis.

Comparable requirements are present with respect to other correlates. For example, if a rigorous retention policy is initiated to help improve climate and raise expectations, comprehensive policies and actions are required to make sure that retention is not punitive. Alternately, eliminating or foregoing retention will not be productive in many schools unless a workable system exists to make sure that students achieving far below grade level receive the special assistance required to help than function successfully in classrooms with meaningful standards.

Fourth, our analysis thus indicates that faculties struggling to improve their effectiveness necessarily face many profound dilemmas that are built in to the underlying school reform process. Whatever choices are made with respect to climate, expectations, parent involvement,

instructional arrangements, or other correlates require explicit attention to numerous obstacles and problems that are certain to impede effectiveness. In identifying policies and practices to which they must devote energy in order to address their priority concerns, they will have to forego, at least temporarily, placing emphasis on other possibilities which also may seem desirable but likely would divert mental, physical, emotional, and psychic energies from more important concerns. In many cases, they probably will need to undertake a planned and organized "abandonment" (Drucker, 1967) of abstractly desirable functions and activities in order to enhance their capacity to deal with their most central goals.

"Less", from this point of view, many well be "more", and chasing the ideal "best", as Chesterton long ago pointed out, may well be the enemy of the "good" that can be attained through concentrating on possibilities that actually are doable through hard work and intelligent decisionmaking in a less-than-ideal world. According to organizational theorist Richard Meier (1972), organizations can respond to overload in a variety of ways. On the positive side, responses such as eliminating low priority activities or "chunking" information and tasks into manageable components can enhance an organization's capacity to achieve its primary mission. Some unproductive alternate responses, such as reducing standards of performance, search for the "magic formula", escape or breakdown, and ritualistic implementation of rules, are all too common among organizations, such as schools, which are highly vulnerable to overload.

Fifth, our review and analysis of issues and practices involving achievement criteria of effectiveness indicated that measurements currently being used tend to be norm-referenced, standardized achievement tests that assess fragmented, lower order skills. In concert with other forces and problems, this practice has helped to produce an enormous alignment problem in elementary and secondary schools. To be effective, teachers must help students acquire higher order skills involving comprehension, critical thinking, and problem solving, but testing drives instruction toward emphasis on small, mechanical skills. Consequently, schools generally have trouble focussing on development of a comprehensive instructional plan for improving higher order skills. To sort out what works from what does not, we must have tests that help us determine whether we are moving in the right direction.

Our sixth conclusion involves the question of whether emphasis should be placed on research regarding effective teaching or research on effective schools. Our analysis suggested that attention should be given to both areas of research, which are mutually reinforcing in the sense that effective teaching practices are important in delivering successful instruction but school-wide improvement will not be strong and lasting unless staff development focussing on teaching methods is part of a much larger effort to deal with other correlates of effectiveness. Over the years many critics tried unsuccessfully to force an "either-or" mind set on teachers and administrators. A typical question often heard among educators has been, "Are we going to do effective schools or effective teaching?" The obvious answer to the question is "yes". Successful teaching for learning for all will require that we align all of our human and organizational resources, which means using the best classroom practices and tightly coupling them with the best organizational practices so as to assure success of our mission.

Comprehensive programs of school improvement recognize the need to bring into the system a common language system that can be used to guide the discourse on school improvement. They seem to recognize the utility that comes from the common language associated with effective teaching research as well as language associated with effective schools research. One is a language of the classroom, of teaching, of interaction, the other is a language of organization, of cultures, of schools as a whole. The next generation of both research and practice will see a further assimilation of these language systems.

Finally, we will conclude this section by calling attention to some of the qualities that appear to characterize faculties and schools that have reported unusual success in working to become more effective for all students. Among these qualities are *insistence* that teachers, students, support personnel, and others in the school adhere to high standards in the face of difficult circumstances (Lonoff, 1971). To attain these standards, faculty at unusually effective schools must be very *persistent* in overcoming numerous obstacles and roadblocks, and they also must be *resilient* in the sense that they cannot allow occasional setbacks to thwart their plans for

continuing improvement. As we noted at several points in this monograph, unusually effective faculties also are *consistent* in devising and implementing coordinated curricula and instructional arrangements that result in high achievement levels among all groups of students. Insistence that faculty, students, and other parties take responsibility for improvement, persistence in doing what must be done to attain high standards, resiliency in moving forward despite discouraging obstacles and developments, and consistency in implementing coordinated and coherent programs to improve instruction, these are some of the key characteristics that will continue to be associated with unusual effectiveness for the foreseeable future.

Some Final Observations

The more effective schools "movement" has undergone five transformations. The first phase focused on the *identification* of effective schools; the second emphasized *description* of the more effective school; the third "crossed the bridge" from description to development of guidelines and *approaches* for improving school effectiveness; the fourth phase which we are now in addresses the *larger organizational context* for the single school, namely the local school district, and the coordination of efforts of state departments, accreditation agencies, the federal government, and other external agencies in working to implement concepts that have emerged from effective schools research.

The number of schools and school districts that are planning and implementing programs of school improvement based on effective schools research continues to increase. In some instances this increasing interest is being energized by state mandates, in other instances motivation for change originates at either the district or school-site level.

Whatever the origin of the initiative, some underlying guidelines seem to be associated with successful and sustained change models. First, the focus of change still needs to be on the single school. Creating more effective schools must occur school by school and one school at a time. Paradoxically, the school-by-school change process is most likely to succeed and be sustained if the larger organizational context in which it is "nested" supports the goals and strategies. Critical questions that need to be asked include: Where do the local board of education and superintendent stand relative to the effective schools process? Can we implement the vision of the more effective school and remain in compliance with state mandates?

A second observation is that the administrators and staff at the school site level must be involved in a collaborative, collegial process designed specifically to empower the change process. Currently, we see all too many principals trying to "do it alone". Many of them are still unsure or unskilled in how to lead through commitment rather than through authority. A popular misconception is that site-based management automatically equals collaboration and teacher empowerment. This is not true. Site-based management speaks to where decisions will be made in the hierarchy; it does not speak to who will be involved in the decisionmaking process. It is unlikely that widespread school improvement can be successfully begun, let alone sustained, without a broad-based empowerment of all those who are stakeholders in the culture of the school. When we find successful examples of groups of schools that are changing, we generally see widespread "ownership" of both the mission and the strategies for change.

One of the important new insights that emerges from the study of school change based on effective schools research and other sources is that success comes when the interventions are broad-based and comprehensive, and originate from fundamental reaffirmation of beliefs. The school improvement strategies first used to implement the effective schools research often focussed entirely or largely on technical change. For example, people would say that they are working on a leadership correlate, and the behavioral or organizational manifestation was to have the principal "walk the halls" more frequently. While that may be an important behavior for the principal, it does not by itself necessarily contribute to productive change. Many of the early frustrations with such "technical thinking" led to the realization that technical changes needed to be yoked to both political and cultural changes. The way to accomplish this is to address straight away the fundamental beliefs and values that define the culture of the school. When this coupling occurs, change will more likely follow and, most importantly, will more likely be sustained. The goals of making schools substantially more effective

cannot be accomplished by depending on the efforts of autocrats, bureaucrats, and technocrats who think they can mandate change through technical rules and regulations that direct schools to improve.

Perhaps the best evidence that can be offered to support the viability of the effective schools movement is to say that it has survived the "excellence" movement. We have just come through a period in public school history in which many well intentioned leaders put in place reform strategies the effects of which were not to teach children but to further differentiate the "winners" from the "losers". The issue of equity was almost an afterthought for many of the excellence advocates.

Whenever we talk about an effective school or an excellent school, we ought to be prepared to ask and answer two very basic questions. Effective or excellent at what and effective or excellent for whom? Ron Edmonds said we already know more than we need in order to successfully teach all students whose schooling is of interest to us. We are even more sure today than we were ten years ago that Edmonds was correct in his assessment. We are also more certain today than we were ten years ago that whether we do or do not reach and teach all students ultimately will depend on how educators and citizens feel about the fact that we are not now accomplishing this goal.

VIII

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